

**KV-X2121D**  
**RM-673**

# SERVICE MANUAL

*AEP Model*

*Chassis No. SCC-B14S-A*



## AE-1 CHASSIS

**Note:** The service manual for RM-673 has been issued separately.

### MODELS OF THE SAME SERIES

KV-X2121D	KV-X2521D
KV-DX21TD	KV-DX27TD
KV-X21TD	KV-X25TD

### SPECIFICATIONS

Television system	CCIR B, G and H	Power consumption	82 Wh
Color system	PAL, SECAM, NTSC3.58, NTSC4.43	Dimensions	Approx. 519 × 471 × 463 mm (w/h/d)
Stereo system	German two-carrier system	Weight	Approx. 26 kg
Channel coverage	VHF channels E2–E12 UHF channels E21–E69 Cable TV channels S1–S20 (A total of up to 30 preselected channels)	Supplied accessories	RM-673 Remote Commander (1) IEC designation R6 batteries (2)
Picture tube	Trinitron tube 100-degree deflection Approx. 54.5 cm (21 inches) (Approx. 51 cm picture measured diagonally)	Audio output	10 W + 10 W (music power)
Inputs	21-pin connector : CENELEC Standard 21-pin connector : RGB input unconnected	Design and specifications are subject to change without notice.	
Outputs	Headphones jack : stereo minijack External speaker terminals : 2-pin DIN Audio output jack : phonojack output level dependent upon TV setting		



**TRINITRON® COLOR TV**  
**SONY®**

## TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>1. GENERAL</b>			<b>5. DIAGRAMS</b>		
1-1. First of All .....	3		5-1. Block Diagram .....	19	
1-2. Connecting Other Equipment .....	3		5-2. Circuit Boards Location .....	24	
1-3. Function of Controls .....	5		5-3. Schematic Diagrams .....	24	
1-4. Viewing Teletext .....	7		5-4. Printed Wiring Boards .....	30	
			5-5. Semiconductors .....	46	
<b>2. DISASSEMBLY</b>			<b>6. EXPLODED VIEWS</b>		
2-1. Rear Cover Removal .....	8		6-1. Rear Cover .....	47	
2-2. Chassis Assy Removal .....	8		6-2. Picture Tube .....	48	
2-3. J1, A and V Boards Removal .....	8				
2-4. KS and B Boards Removal .....	9				
2-5. Service Position .....	9				
2-6. Picture Tube Removal .....	9				
<b>3. SET-UP ADJUSTMENTS</b>			<b>7. ELECTRICAL PARTS LIST</b> .....	49	
3-1. Beam Landing .....	10				
3-2. Convergence .....	11				
3-3. Focus .....	12				
3-4. White Balance .....	13				
<b>4. CIRCUIT ADJUSTMENTS</b>					
4-1. B Board Adjustments .....	15				
4-2. D Board Adjustments .....	16				
4-3. A Board Adjustments .....	16				
4-4. J1 Board Adjustments .....	17				
4-5. V Board Adjustments .....	17				
4-6. Sub Adjustments .....	17				

## SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## SECTION 1 GENERAL

**Note)** The layout, etc., will be slightly different from the operating instructions packed with the units.

### 1-1. FIRST OF ALL

- 1 Connect the aerial to the  $\Gamma$  socket on the rear of the set.  
This socket receives the standard 75-ohm aerial plug.
- 2 Plug in the set.
- 3 Tune in the available channels.

Use the buttons inside the panel. To open the panel, push the center.

To tune in all channels automatically :

- 1 Press  $\Rightarrow$  (preset).
- 2 Press PROGR to select the program position from which tuning is to start.
- 3 Press  $\Rightarrow$  (auto programing).

The channels will be tuned in and memorized in consecutive positions, beginning from the program position selected in step 2.

When tuning has been completed, the set returns to the position where tuning began.

To tune in a channel in any desired program position. (e. g. the position which the same number as the channel) :

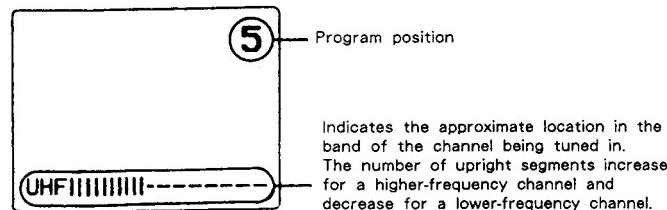
- 1 Press  $\Rightarrow$  (preset).
- 2 Press PROGR to select the desired program position.
- 3 Press C (clear).
- 4 Press  $\pm$  (search) repeatedly until the desired channel appears.
- 5 Repeat steps 2 to 4 for all channels, if required.
- 6 Press  $\Rightarrow$  (preset) again.

If the set is to be used in an area with poor reception, preset the program numbers between 1 and 19 for TV program use.

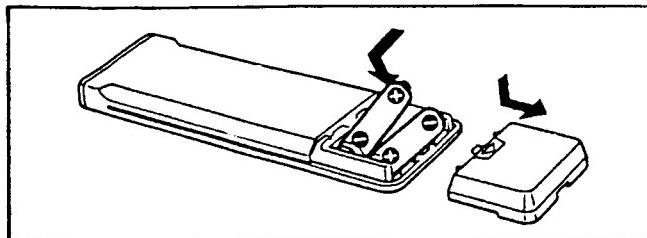
To have the unused program positions skipped when PROGR+ or PROGR- is pressed

- 1 Press  $\Rightarrow$  (preset).
- 2 Press PROGR to select the unused position.
- 3 Press C (clear).
- 4 Repeat steps 2 and 3 for all unused position.
- 5 Press  $\Rightarrow$  (preset) again.

On-screen display while tuning

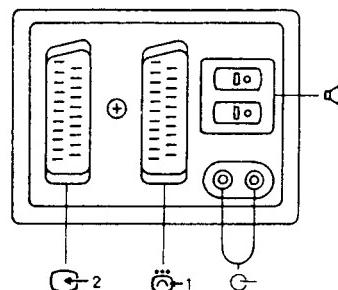


- 4 Insert two R6 batteries checking the correct polarity.



### 1-2. CONNECTING OTHER EQUIPMENT

Connectors on rear set



L/G/S	Left external speaker terminal (2-pin DIN)	Connect to external speakers. The TV speakers will be disconnected.
R/D/D	Right external speaker terminal (2-pin DIN)	speakers 8–16 $\Omega$
R/D/D	Right audio output jack (phono jack)	Connect to audio equipment. When only using the phono-jacks, two loudspeaker plugs, (DIN 41529) should be inserted into the external speaker terminals so that the TV speaker output is switched off.
L/G/S	Left audio output jack (phono jack)	
G-1	21-pin connector (CENELEC standard)	Connect to a VTR micro computer, etc. The picture of the TV channel being received is always output. The picture of G-2 can be watched while recording a TV program with the VTR connected to G-1.
G-2	21-pin connector (without RGB input)	Connect to second VTR. The picture displayed on the screen is always output. The picture of G-1 can be recorded with the VTR connected to G-2 while monitoring the picture.

#### VTR operation using the supplied Commander

Remote operation of the VTR is limited to the features and functions of the VTR. For further details, refer to the VTR manual.

When watching a video with the VTR connected to the  $\Gamma$  connector, set the channel for the video to the program number 0 or any empty channel between 20 and 29.

#### Note

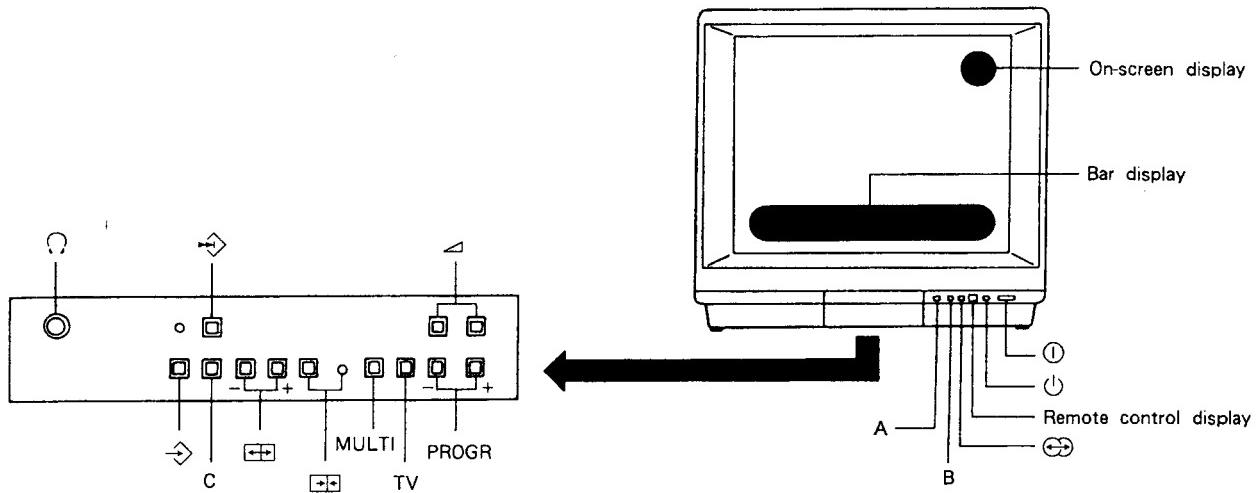
Move the VTR away from the TV, if the picture or sound is distorted.

**21 pin connector (Pin 1, Pin 2)**

Pin No	Pin 1	Pin 2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5 Vrms Output impedance : Less than 1 k ohm*
2	○	○	Audio input B (right)	Standard level : 0.5 Vrms Input impedance : More than 10 k ohms*
3	○	○	Audio output A (left)	Standard level : 0.5 Vrms Output impedance : Less than 1 k ohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5 Vrms Input impedance : More than 10 k ohms*
7	○	●	Blue input	0.7 V ±2 dB, 75 ohms, positive
8	○	○	Function select (AV control)	High state (9.5–12 V) : Part mode Low state (0–2 V) : TV mode Input impedance : More than 10 k ohms Input capacitance : Less than 2 nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green/Green with sync input	Green signal : 0.7 V ±2 dB, 75 ohms, positive Green with sync signal : 1 V ±2 dB, 75 ohms, positive
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	●	Red input	(Same as Pin 7)
16	○	●	Blanking input (Y <sub>s</sub> signal)	High state (1–3 V) Low state (0–0.4 V) Input impedance : 75 ohms
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1 V ±2 dB, 75 ohms, positive Sync : 0.3 V (-3, ±10 dB)
20	○	○	Video input	1 V ±2 dB, 75 ohms, positive Sync : 0.3 V (-3, ±10 dB)
21	○	○	Common ground (plug, shield)	

\* at 20 Hz–20 kHz   ○ connected   ● unconnected (open)

### 1-3. FUNCTION OF CONTROLS



#### On the set

##### On-screen display

Indicates program numbers and input modes.

##### Bar display

Indicates the level of volume, color, brightness, contrast, bass, treble and balance.

##### Note on function.

When the volume is at the minimum setting the balance function will not operate.

##### Power switch

To cut off the mains power completely, press this switch. Depress the power switch fully to ensure correct operation of the set.

##### Note

To ensure correct operation, push the switch in fully.

##### standby indicator

Lights up brightly when the set is in the standby mode.

##### Note

If the main power is turned off when in standby mode, the standby indicator will take 2 to 6 seconds to go off.

##### space sound indicator

Lights up when on the Remote Commander is pressed.

##### A/B indicators

One of them lights during bilingual broadcast. (Choose A or B with the Remote Commander.)

Both light during stereo broadcast. In AV mode, A lights for left channel, B for right channel, or A and B for both channels.

##### Remote control detector

Point the Remote Commander towards this detector.

#### Inside the panel

##### headphones jack (stereo minijack)

##### SEARCH buttons

Press to fine tune a weak channel manually, if required. When is pressed, the indicator (AFT) goes off and the AFT circuit does not function on the selected channel. To restore the AFT circuit on this channel, press (AFT) so that the indicator lights up.

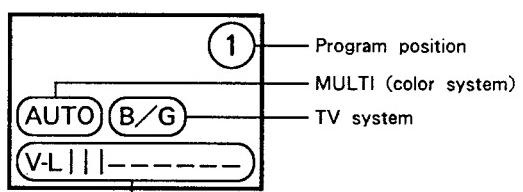
##### AFT button and indicator

Normally, press so that the indicator lights up. The AFT circuit automatically fine tunes the channel for the best possible picture.

##### volume buttons

##### PROGR+, PROGR- program scan buttons

##### On-screen display during presetting



Indicates the approximate location in the band of the channel being tuned in.

"V-L" : low VHF band, "V-H" : high VHF band,  
"UHF" : UHF band.

The number of upright segments increases for a higher-frequency channel.

Each time TV button is pressed, the following indications appear in this order.

B/G : West European TV standard

I : British TV standard

M : American TV standard

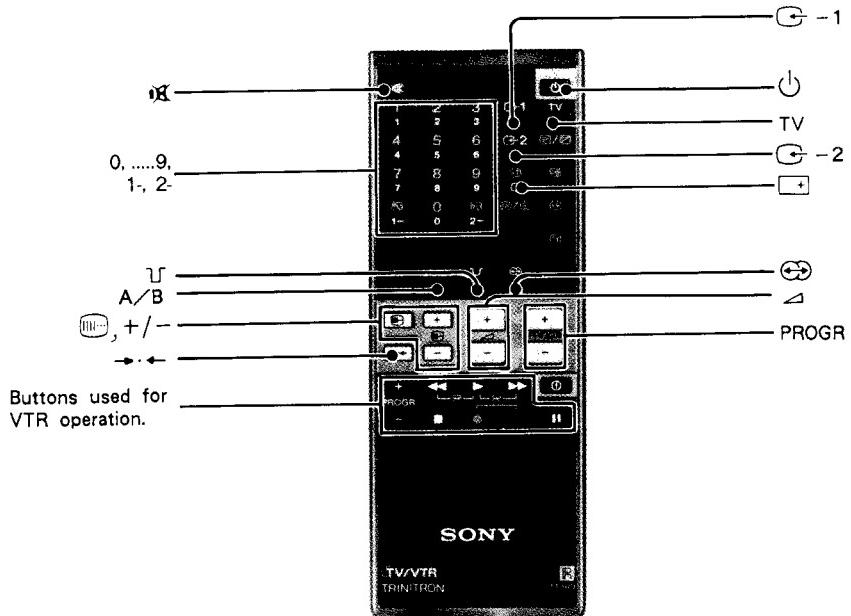
D/K : East European TV standard

L : French TV standard

Each time MULTI button (COLOR SYSTEM) is pressed, the following indications appear in this order.

AUTO ; NTSC3.58 ;

Normally set to the AUTO position. The available color system is selected automatically.



RM-673

## On the Remote Commander

To operate the Commander, point it toward the remote control detector.

### mute button

### 0, ..., 9, 1-, 2- buttons

To tune into :

program 15, press 1- and 5.  
program 25, press 2- and 5.

### A/B button

Press to select the language in a bilingual broadcast, or to select the channel in AV mode.

### + / - analogue select buttons

Press .

will appear on the screen. Adjust by pressing + or -. Press again and adjust (color), then (brightness), (bass), (treble) and (balance).

### → • ← reset button

Press to reset color, contrast and brightness to factory-set levels.

### standby button

Press to change to the standby mode. Use this button to turn off the set for short periods of time.

To turn on the set, press TV or the program number; there will be a slight delay before the picture is restored.

If the main power is turned off when in standby mode, the standby indicator will take 2 to 6 seconds to go off.

### TV button

Press to change to the TV mode from standby, input or teletext modes.

### 1 input button

Press to view the input picture coming in through the connector.

" 1" lights up on the screen.

Press TV or the program number to return to the TV mode.

### 2 input button

Press to view the input picture coming in through the connector.

" 2" lights up on the screen.

Press TV or the program number to return to the TV mode.

### on-screen display button

Press to make the display appear on the screen.

Press again to make it disappear.

### loudness button

Press to emphasize high and low notes.

### space sound button

Press to obtain special acoustic effects.

### volume buttons

### PROGR program scan buttons

#### Note

Buttons not referred to on this page or next page do not operate.

## 1-4. VIEWING TELETEXT

To view the teletext service, use the Remote Commander. The buttons for teletext operation are indicated in green.

### Operation

- 1 Select the TV channel for the desired teletext service.
- 2 Press (TEXT/MIX) to display the teletext service.  
Once has been pressed, the TV channel cannot be changed.
- 3 Key in the three digits for the desired page using the number buttons. If an error is made, complete the three-digit sequence by keying in any digit. Then re-enter the correct page number. The requested teletext page is displayed.

To return to the TV mode, press TV on the remote commander.

The teletext service can be displayed directly from the standby mode, by pressing .

### To receive the teletext service of a different TV channel

- 1 Press TV to return to the TV mode.
- 2 Select the desired TV channel.
- 3 Press .

### Note

To receive the teletext service accurately, keep inside the panel switched on during teletext operation.

### To display the index page

Press (INDEX).

If the necessary signal is not being broadcast, page 100 is displayed.

### To access the next or preceding page

Press (PAGE+) or (PAGE-).

### To superimpose the teletext display on the TV picture

Press twice from TV mode.

Press again to return to the TEXT display.

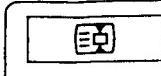
### To suppress the teletext display so that the TV picture is displayed

Press (TEXT CL).

This button can be operated from both the TEXT and MIX displays.

### To prevent a teletext page (subpage) from being updated /changed

Press (HOLD). The HOLD symbol appears at the top of the screen.



To resume normal teletext reception, press .

### To enlarge the teletext display

Press .

Press once to enlarge the upper half of the display; press again to enlarge the lower half of the display; press again to return to the normal display.

### To reveal concealed information such as the answers to a quiz

Press (REVEAL).

Press again to conceal the answers.

### To adjust the contrast of the teletext display.

When in teletext mode, adjust by using the + or - keys adjacent to the key.

### To watch the TV program while waiting for a requested page to be displayed

- 1 Request the new page.

- 2 Press to watch the TV program.

The requested page number appears at the top left of the screen.

When the requested page has been captured, the page number is displayed in the top left hand corner of the screen.

P101

To view this page, press .

### To have a requested page displayed at a pre-determined time

- 1 Request a time coded page (e.g. alarm page).

- 2 Press (TP ON).

"T\*\*\*" will appear at the bottom of the screen.

T\*\*\*

- 3 Enter your request time with the number buttons, using four digits. For example, 07 : 30.

T0730

To watch the TV program until the requested time, press . At the requested time, the page number will be displayed at the bottom of the screen.

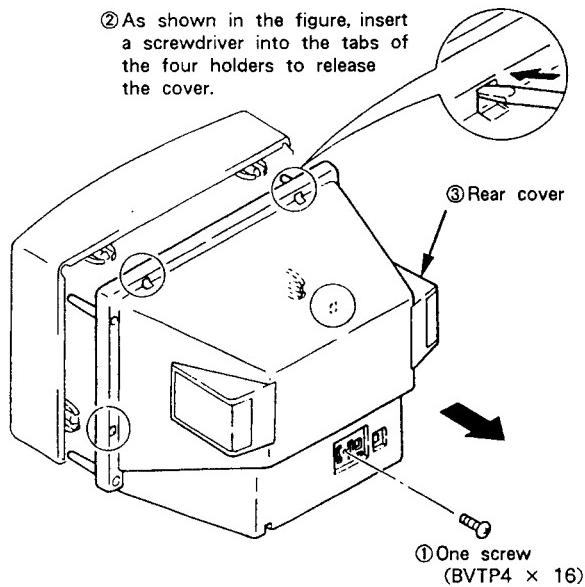
To view this page, press .

To cancel the request, first ensure that the teletext page is displayed, then press (TP OFF).

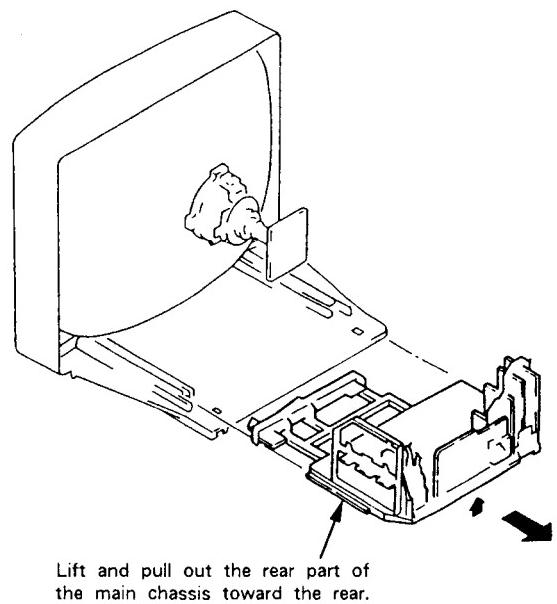
## SECTION 2

### DISASSEMBLY

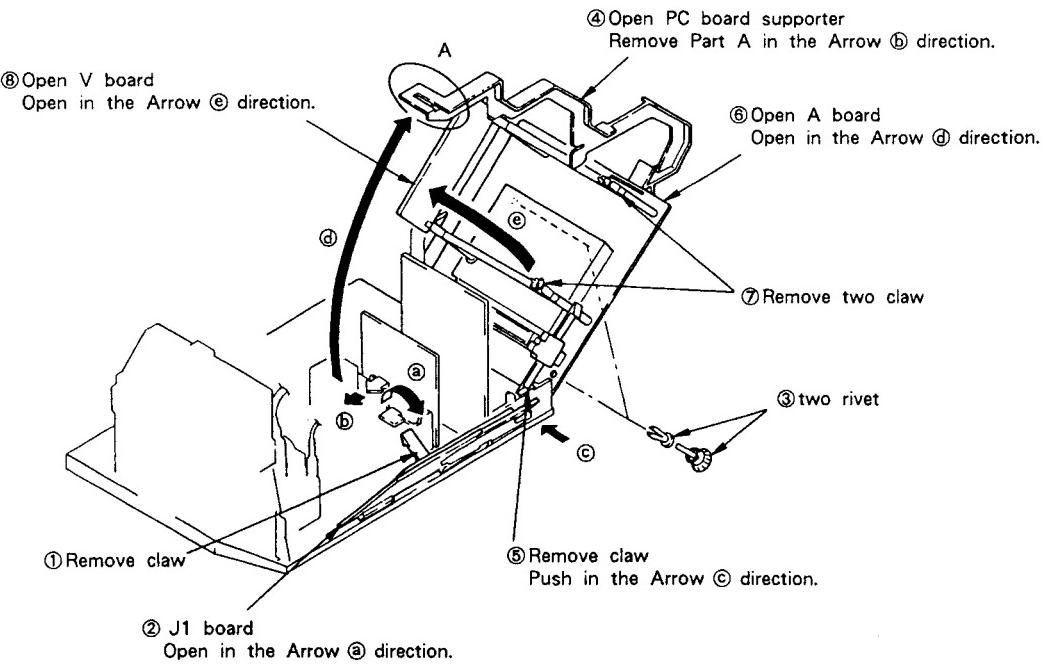
#### 2-1. REAR COVER REMOVAL



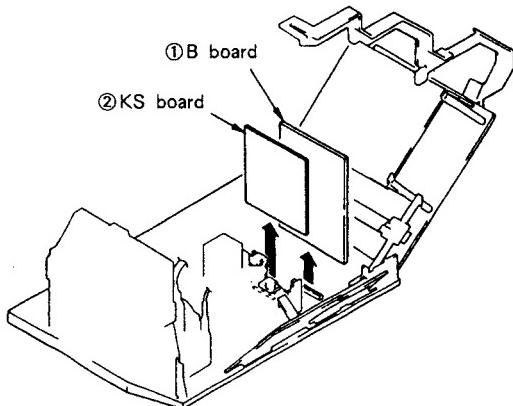
#### 2-2. CHASSIS ASSY REMOVAL



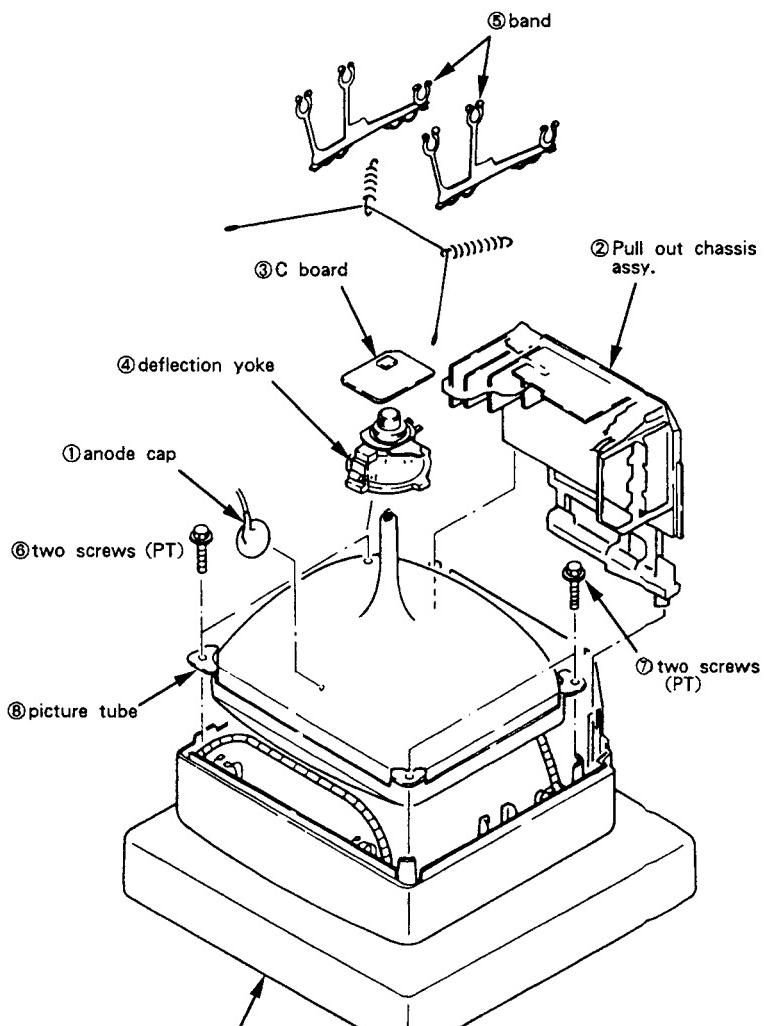
#### 2-3. J1, A AND V BOARDS REMOVAL



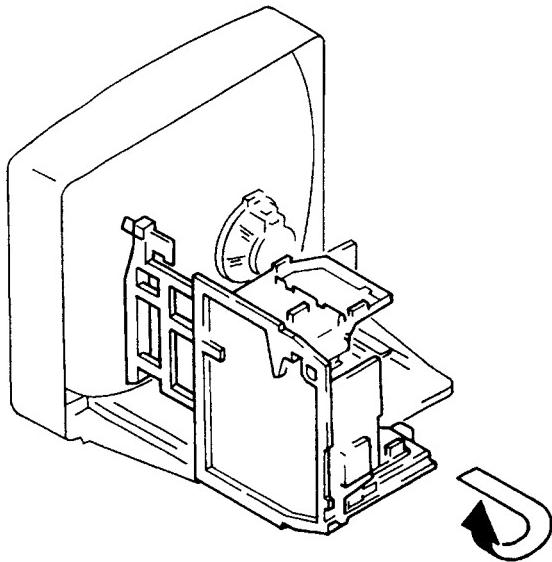
## 2-4. KS AND B BOARDS REMOVAL



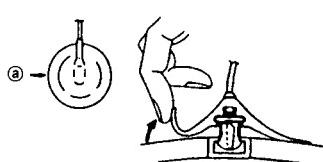
## 2-6. PICTURE TUBE REMOVAL



## 2-5. SERVICE POSITION

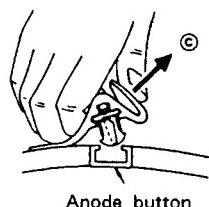
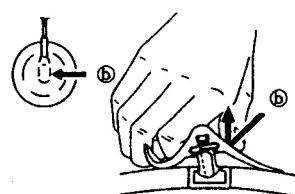


### • Removing Procedures



- ① Turn up one side of the rubber cap in the direction indicated by the arrow ④.

- ② Using a thumb, pull up the rubber cap firmly in the direction indicated by the arrow ⑤.



- ③ When one side of the rubber cap is separated from the anode button, the anode cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⑥.

## SECTION 3

### SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The control and switch below should be set as follows unless otherwise noted :

●CONTRAST control ..... 80% (or Normal by Commander)

⊗BRIGHTNESS control ..... 50%

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

**Note :** Test Equipment Required.

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital multimeter
5. Oscilloscope

#### Precaution

- Set the side of the unit with the PICTURE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.
- Turn the power switch for the unit ON and erase the magnetic force using a degausser.

#### 3-1. BEAM LANDING

1. Input a raster signal with the pattern generator.  
CONTRAST ..... normal  
BRIGHTNESS ..... normal
2. Turn the raster signal of the pattern generator to red.
3. Move the deflection yoke backward, and adjust with the purity control so that red is in the center and blue and green are at the sides, evenly. (Fig. 3-1 to 3-3)
4. Move the deflection yoke forward, and adjust so that the entire screen becomes red. (Fig. 3-1)
5. Switch over the raster signal to blue and green and confirm the condition.
6. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.
7. When landing at the corners is not right, adjust by using the magnet. (Fig. 3-4)

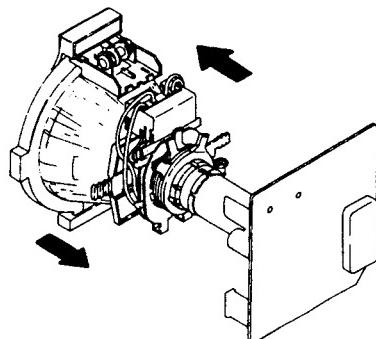


Fig. 3-1

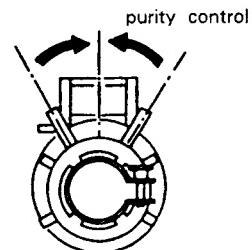


Fig. 3-2

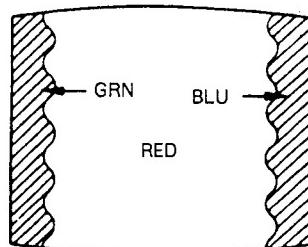


Fig. 3-3

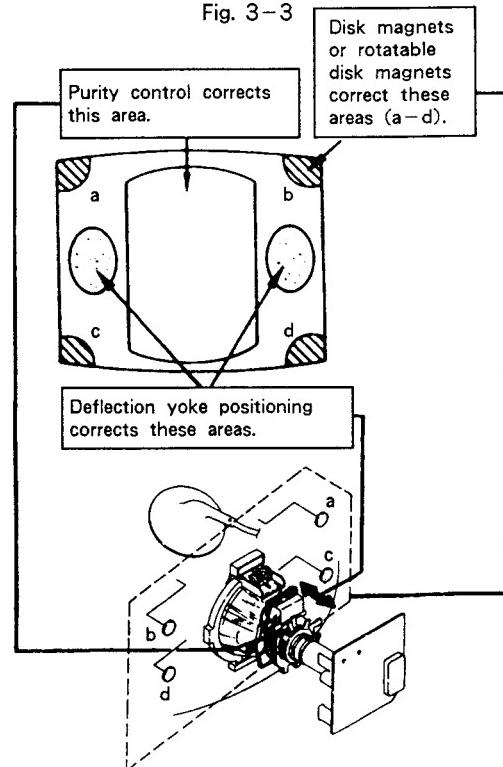


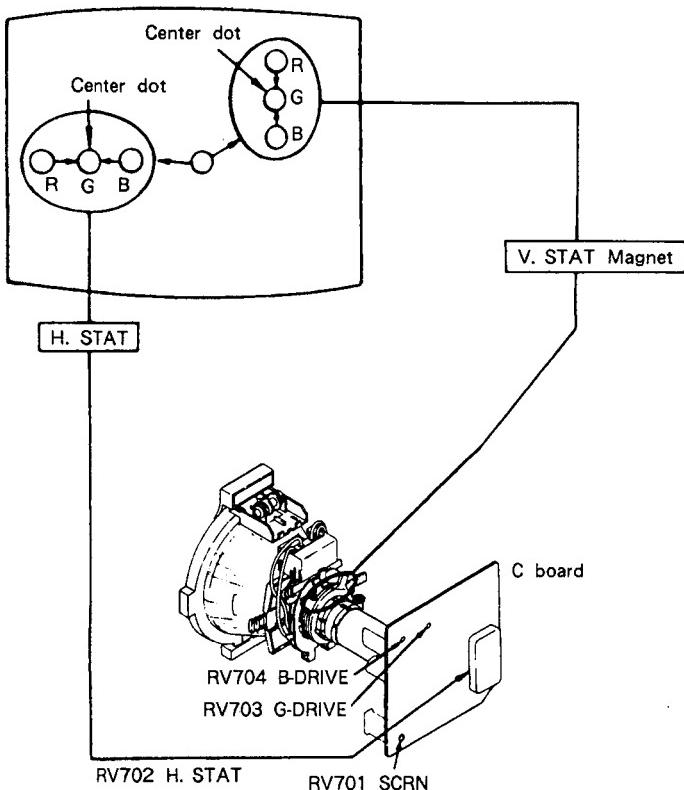
Fig. 3-4

### 3-2. CONVERGENCE

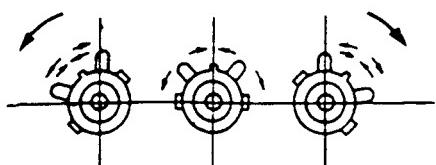
#### Preparation :

- Before starting, perform FOCUS, H. SIZE and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Feed in the dot pattern.

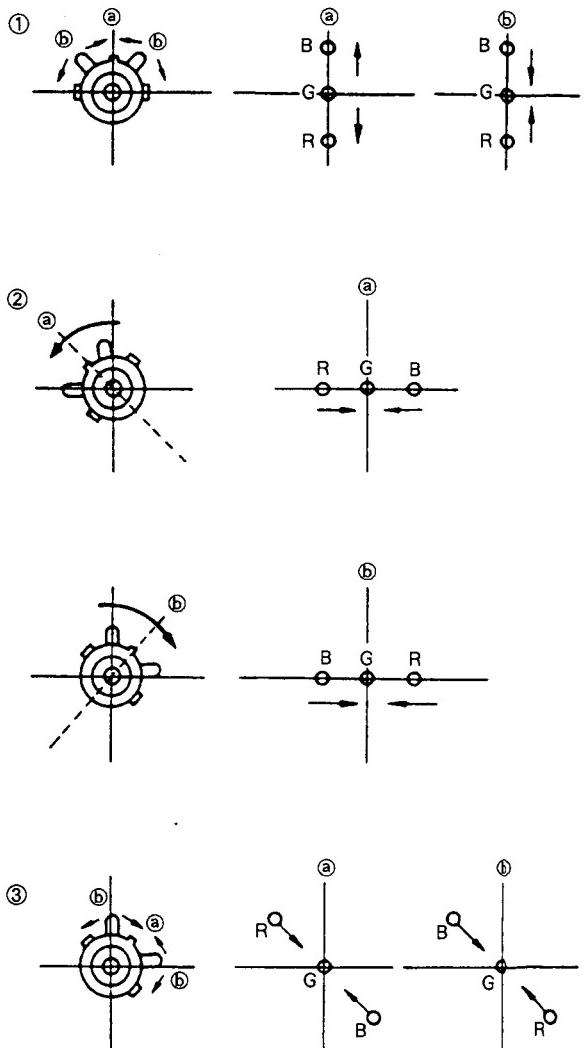
#### (1) Horizontal and Vertical Static Convergence



1. Adjust H. STAT VR to coincide red, green and blue dots on the center of screen. (Horizontal movement)
2. Adjust V. STAT magnet to coincide red, green and blue dots on the center of screen. (Vertical movement)
3. If the red, green and blue dots do not coincide on the center of screen with H. STAT VR, perform horizontal convergence adjustment using H. STAT VR and V. STAT magnet as shown below. (In this case, H. STAT VR and V. STAT magnet effect each other.)
- Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



4. When the V. STAT magnet is moved in the direction of arrow ④ and ⑤, red, green and blue dots move as shown below.

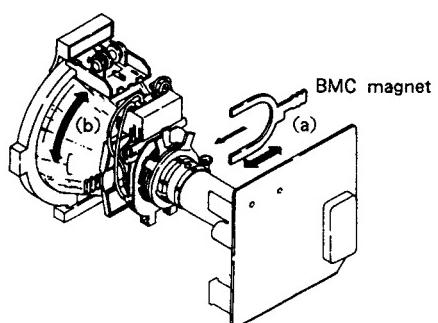


If the red and blue dots do not coincide with green dot, perform following steps.

Move BMC magnet (a) to correct insufficient H. static convergence.

Rotate BMC magnet (b) to correct insufficient V. static convergence.

In either case, repeat Beam Landing Adjustment.

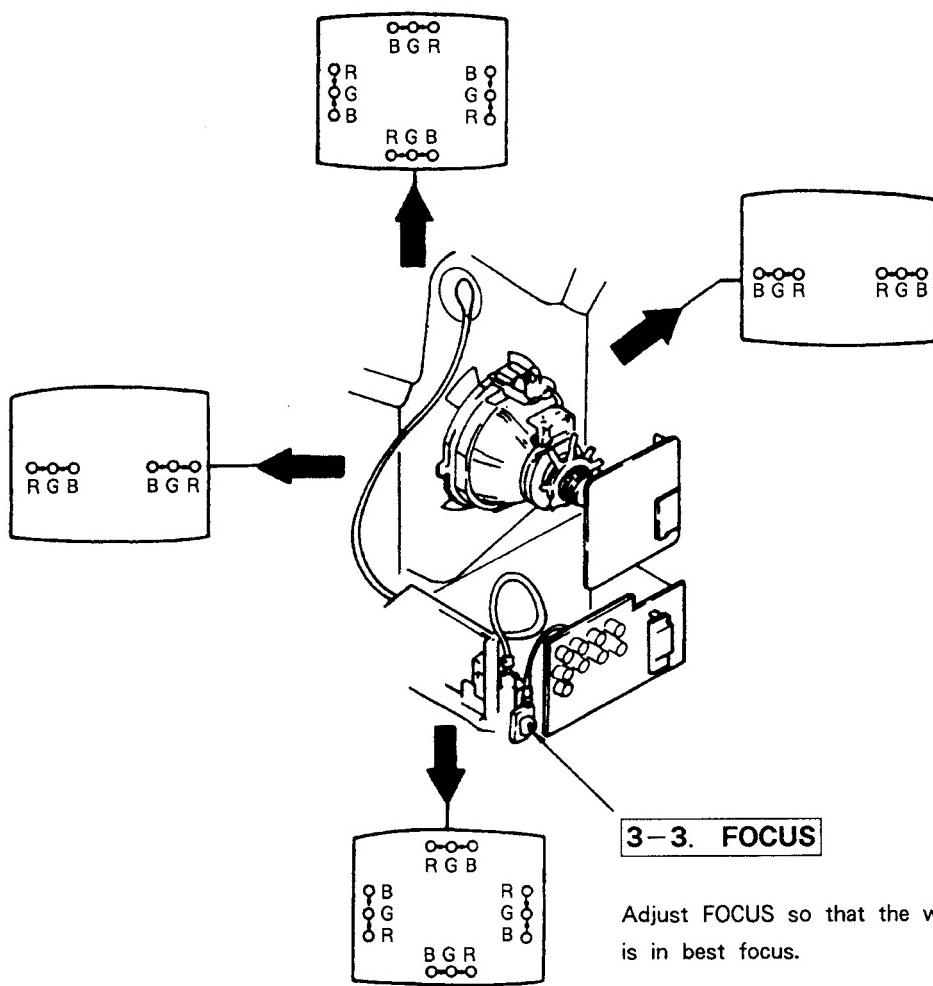


## (2) Dynamic Convergence Adjustment

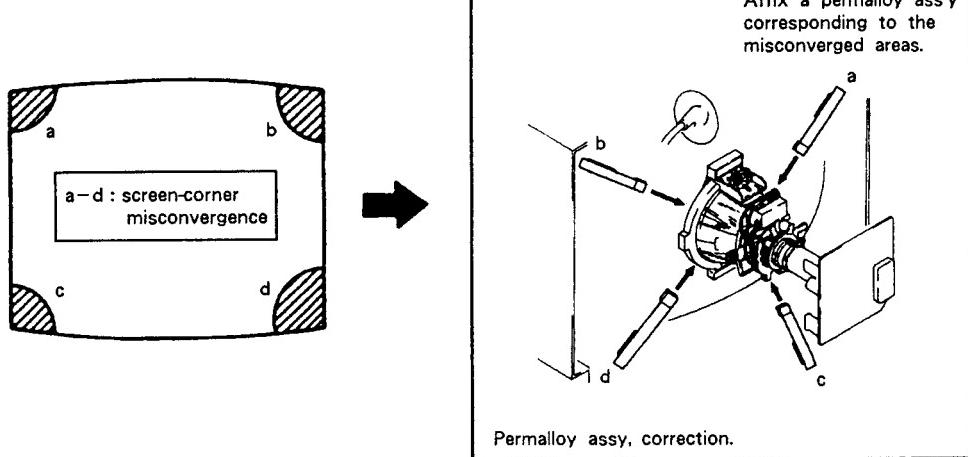
### Preparation :

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.
- 1. Slightly loosen deflection yoke screw.
- 2. Remove deflection yoke spacers.

3. Move the deflection yoke for best convergence as shown below.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.



## (3) Screen-corner Convergence



### **3-4. WHITE BALANCE**

#### **(Screen (G2) Setting)**

1. Input dot signals from the pattern generator.
2. Set the picture BRIGHTNESS control to the minimum level.
3. Apply 170 V dc to the cathodes of R, G, and B from an external power source.
4. While watching the picture, adjust the G2 volume (RV701) immediately before the fly-back line disappears.

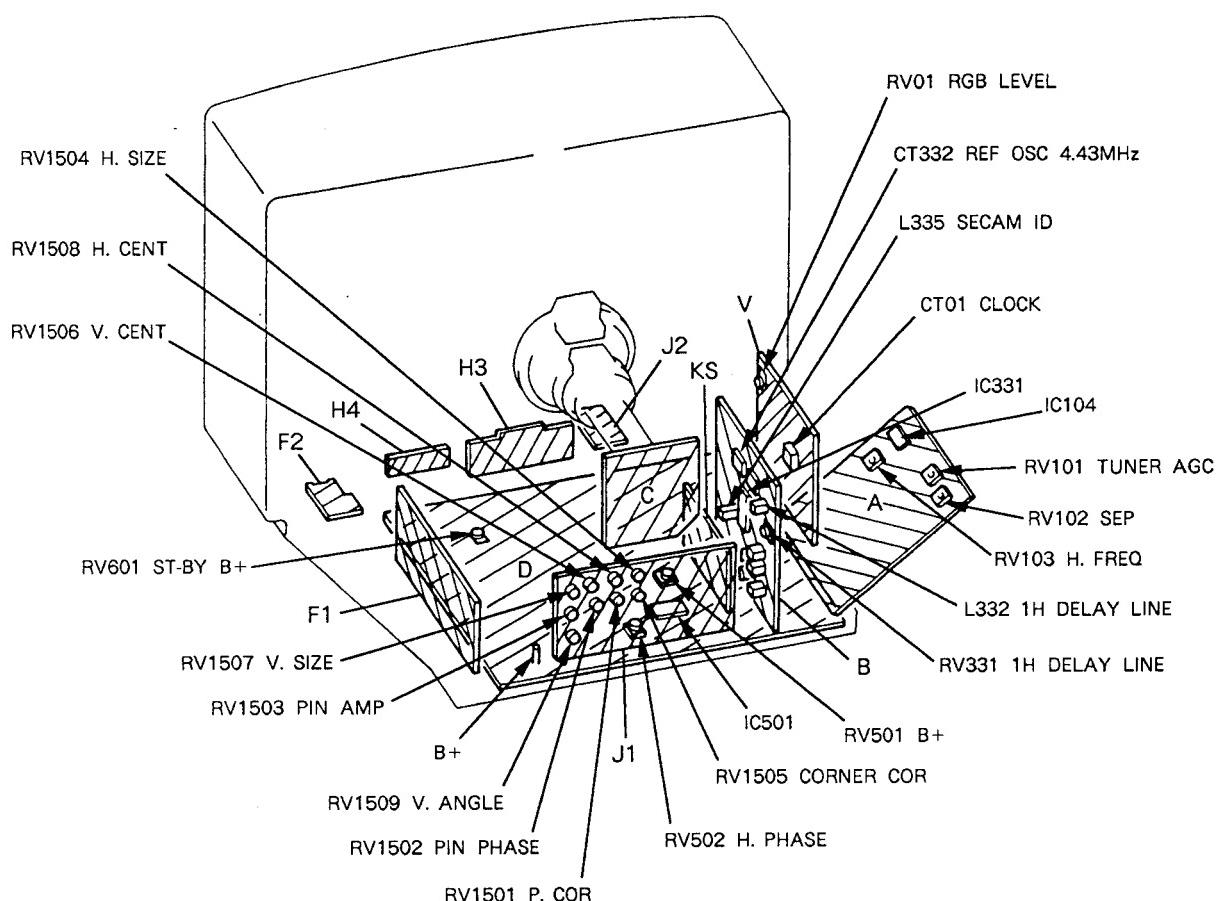
#### **(White Balance Adjustment)**

1. Input all-white signals from the pattern generator.
2. Adjust the BRIGHTNESS and COLOR controls to the standard level.
3. Adjust the white balance using RV704 (B DRIVE) and RV703 (G DRIVE).

In the following adjustments, the CONTRAST COLOR and BRIGHTNESS controls are set to normal unless otherwise specified.

## SECTION 4

### CIRCUIT ADJUSTMENTS



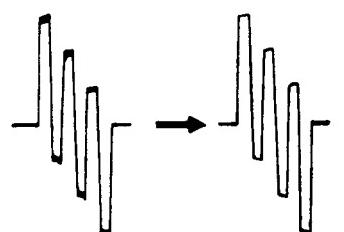
#### 4-1. B BOARD ADJUSTMENTS

##### **REF OSC Adjustment (CT332)**

1. Input a PAL COLOR BAR pattern.
2. Short circuit between pin ⑪ of IC331 and ground.
3. Adjust CT332 to obtain color synchronization.
4. Remove the jumper wire from IC331.

##### **1H DELAY LINE Adjustment (L332, RV331)**

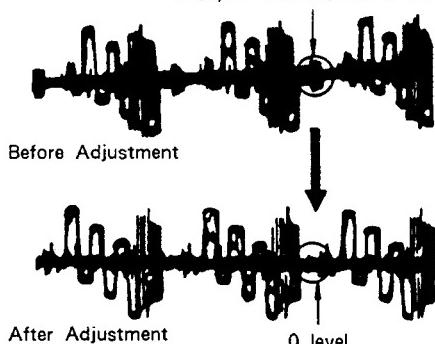
1. Input a PAL COLOR BAR pattern.
2. Connect the oscilloscope to pin ⑩ (B-Y) of IC331 and observe the waveform of the H block on the oscilloscope.
3. Adjust L332 to minimize the double waveform outline.



Before Adjustment      After Adjustment

4. Input a PAL TEST COLOR BAR pattern.
5. Rotate the RV331 VR and adjust till the ANTI-PAL part of the waveform matches the 0 level.

This part matches the 0 level.



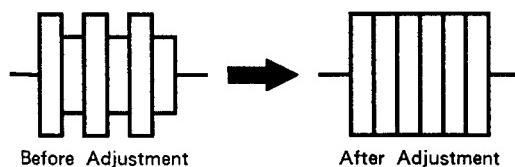
6. L332 and RV331 affect each other. So repeat till the conditions of both are met.

##### **SECAM ID Adjustment (L335)**

1. Input a SECAM COLOR BAR pattern.
2. Connect a Digital Multimeter to pin ⑪ of IC331.
3. Adjust L335 so that the indicator goes up to the maximum.

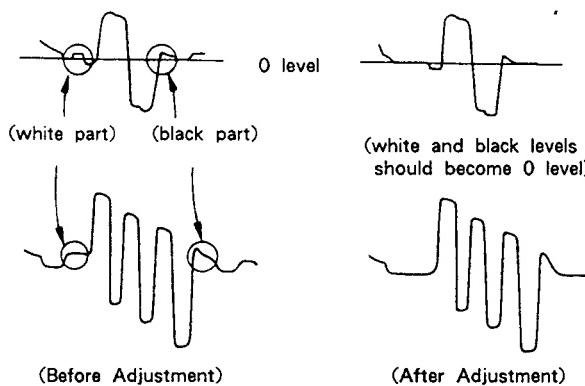
#### BELL FILTER Adjustment (T331)

1. Input a SECAM COLOR BAR pattern.
2. Connect an oscilloscope to the Q335 emitter.
3. Adjust T331 so that the waveform becomes flat.



#### SECAM DISCRI Adjustment (L333, L334)

1. Input a SECAM COLOR BAR pattern.
2. Connect an oscilloscope to pin ① of IC331.
3. Adjust L333 so that white and black parts of the waveform of pin ① becomes 0 level.
4. Connect an oscilloscope to pin ③ of IC331.
5. Adjust L334 so that white and black parts of the waveform of pin ③ becomes 0 level.



## 4-2. D BOARD ADJUSTMENTS

#### B+ Adjustment (RV501)

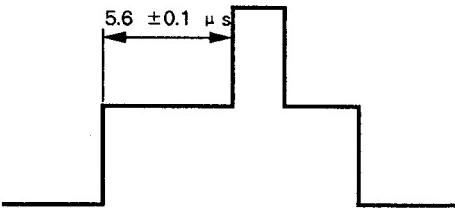
1. Connect a Digital Multimeter to TP91.
2. Adjust RV501 so that the voltage becomes  $135 \pm 0.2$  V.

#### ST-BY B+ Adjustment (RV601)

1. Set up  $\odot$ standby (Remote Commander) mode.
2. Connect the Digital Multimeter to TP91.
3. Adjust RV601 so that the voltage becomes  $135 \pm 3$  V.
4. Release the  $\odot$ standby (Remote Commander) mode.

#### H. PHASE Adjustment (RV502)

1. Input a PAL TEST COLOR BAR pattern.
2. Set the CONTRAST and BRIGHTNESS controls to the standard positions.
3. Set RV1508 (H. CENT) to the mechanical center position.
4. Connect an oscilloscope to pin ⑪ (SPC OUT) of IC501.
5. Rotate RV502 and adjust Block T to  $5.6 \pm 0.1$   $\mu$ s.



## 4-3. A BOARD ADJUSTMENTS

#### TUNER AGC Adjustment (RV101)

1. Tune in an off-air signal.
2. Adjust RV101 so that snow-noise and cross-modulation just disappear from the picture.

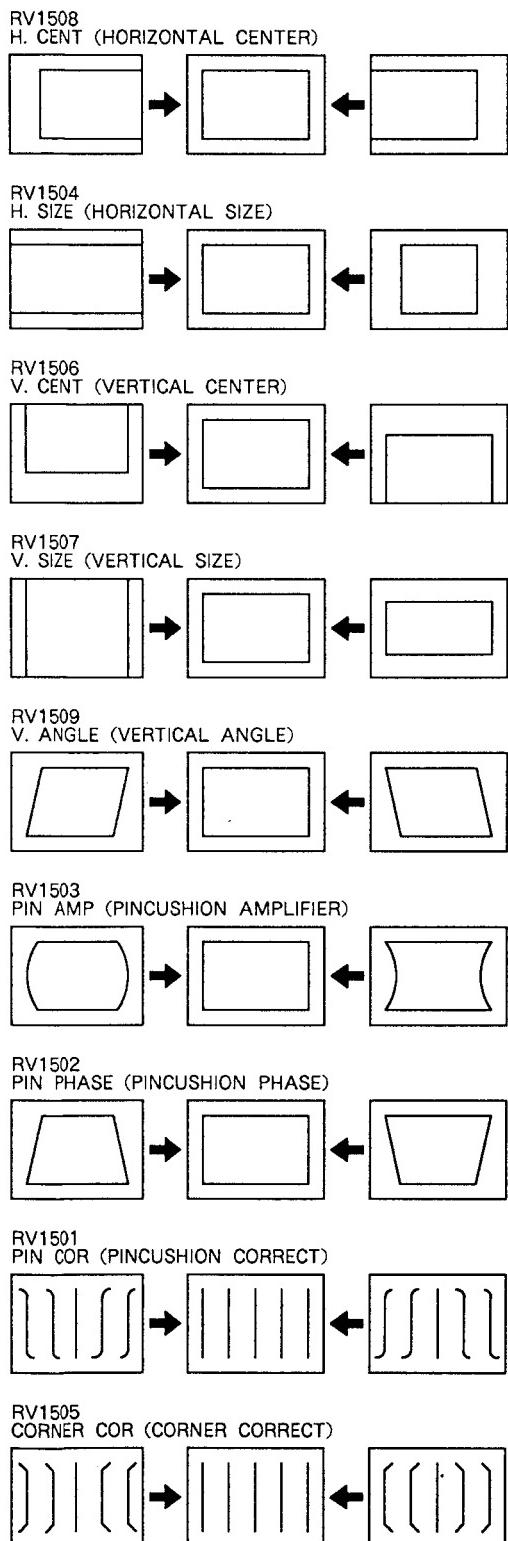
#### STEREO SEPARATION Adjustment (RV102)

1. Input stereo signals. (L-CH 1 kHz, R-CH 400 Hz)
2. Check the stereo indicator.
3. Connect an oscilloscope to pin ① (L) of CNA11 through band pass filter of 1 kHz.
4. Adjust RV102 so that 1 kHz voltage goes down to the minimum.

#### H. FREQ Adjustment (RV103)

1. Input a PAL COLOR BAR pattern.
2. Short circuit between pin ⑫ of IC104 and ground.
3. Connect a frequency counter to pin ⑥ of IC104 through a probe of 10 : 1.
4. Adjust RV103 so that H. frequency becomes  $15,625 \pm 50$  Hz.

#### 4-4. J1 BOARD ADJUSTMENTS



#### 4-5. V BOARD ADJUSTMENTS

##### Clock Adjustment (CT01)

1. Disconnect the V-1 connector.
2. Set up the TELE TEXT mode.
3. Adjust CT01 to stop pictures from scrolling.

##### RGB Level Adjustment (RV01)

1. Set PICTURE to maximum.
2. Adjust RV01 till the RGB output becomes 0.75 V.

#### 4-6. SUB ADJUSTMENTS

##### SUB BRIGHTNESS Adjustment

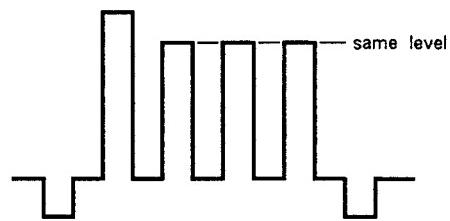
1. Receive and display a TEST COLOR BAR pattern.
2. Push  $\rightarrow \leftarrow$  on the remote commander to invoke the normal state.
3. Turn off the power supply.
4. Turn on the power supply while pushing the SUB button (S1414). (SUB mode is invoked.)
5. Reduce the CONTRAST to the minimum level.
6. Adjust the BRIGHTNESS control until the 0 IRE of the gray scale becomes completely cut off, and the 20 IRE becomes barely luminous.
7. Push the AFT button. (SUB mode is cleared)

Where no TEST COLOR BAR pattern is available.

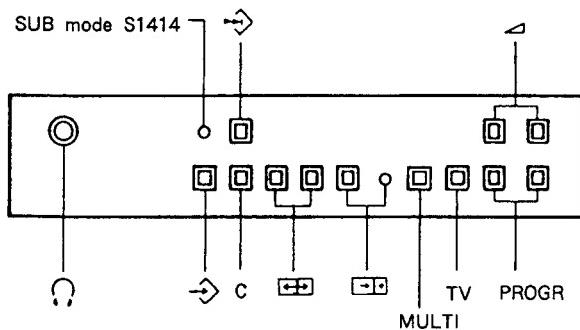
1. Display a COLOR BAR pattern.
2. Push  $\rightarrow \leftarrow$  on the remote commander to invoke the normal state.
- Set the COLOR to normal mode.
- Steps 3 – 5 are the same as above.
6. 20 IRE is close to blue, so adjust the BRIGHTNESS control till blue is faintly luminous.
7. Same as Step 7 above.
8. Push  $\rightarrow \leftarrow$  on the remote commander to invoke the normal state.
- \* When Step 4 is executed correctly, S (SUB mode) is displayed at the upper right of the display. As S is displayed only for 30 seconds, perform the adjustment within 30 seconds, or repeat from Step 4.

### **SUB COLOR Adjustment**

1. Display a COLOR BAR pattern.
2. Push  $\rightarrow \leftarrow$  on the remote commander to invoke the normal state.
3. Turn off the power supply.
4. Turn on the power supply while pushing the SUB button (S1414). (SUB mode is invoked.)
5. Adjust the COLOR control until the B out (pin ② of CNC72 connector on C board) waveform becomes as shown below.
6. Push the AFT button. (SUB mode is cleared.)

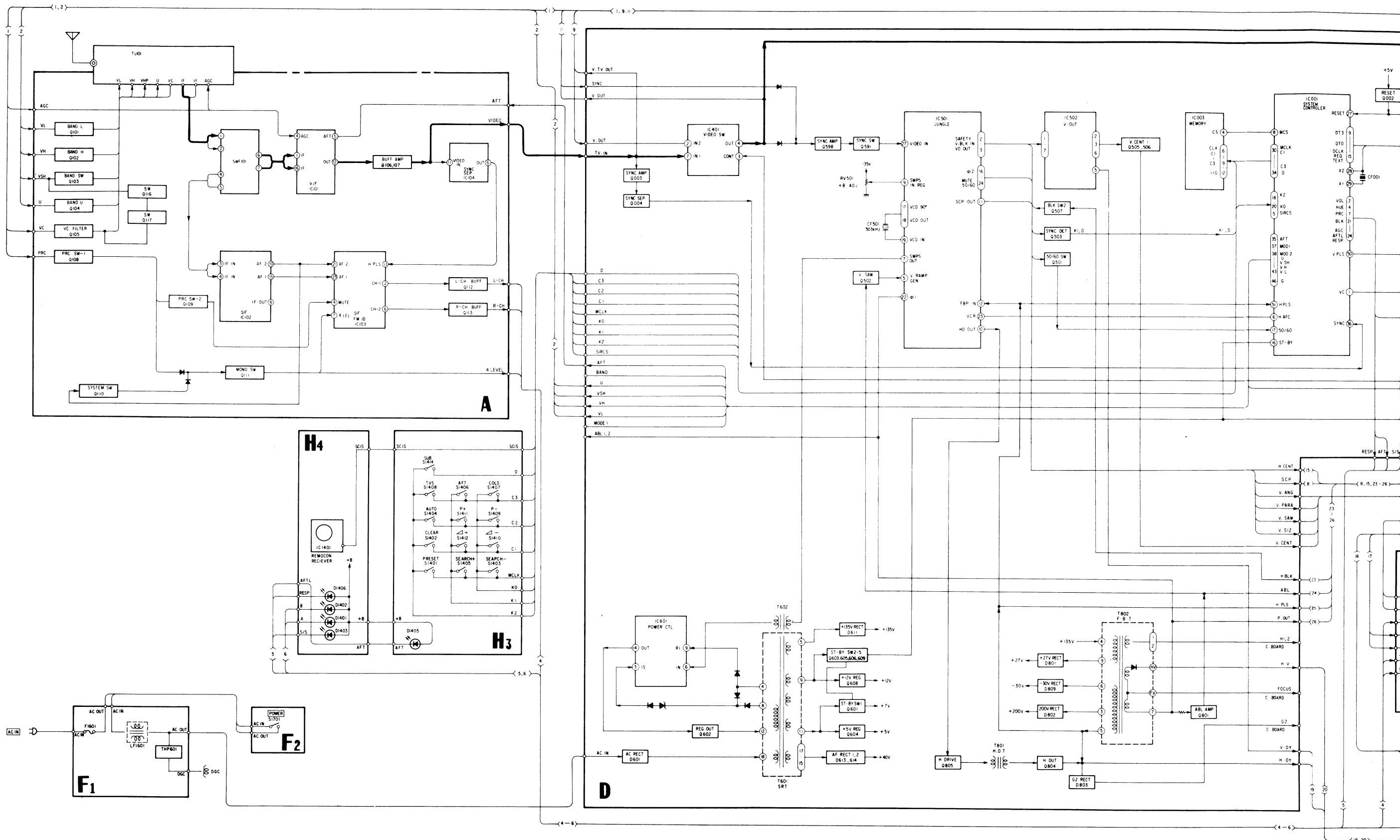


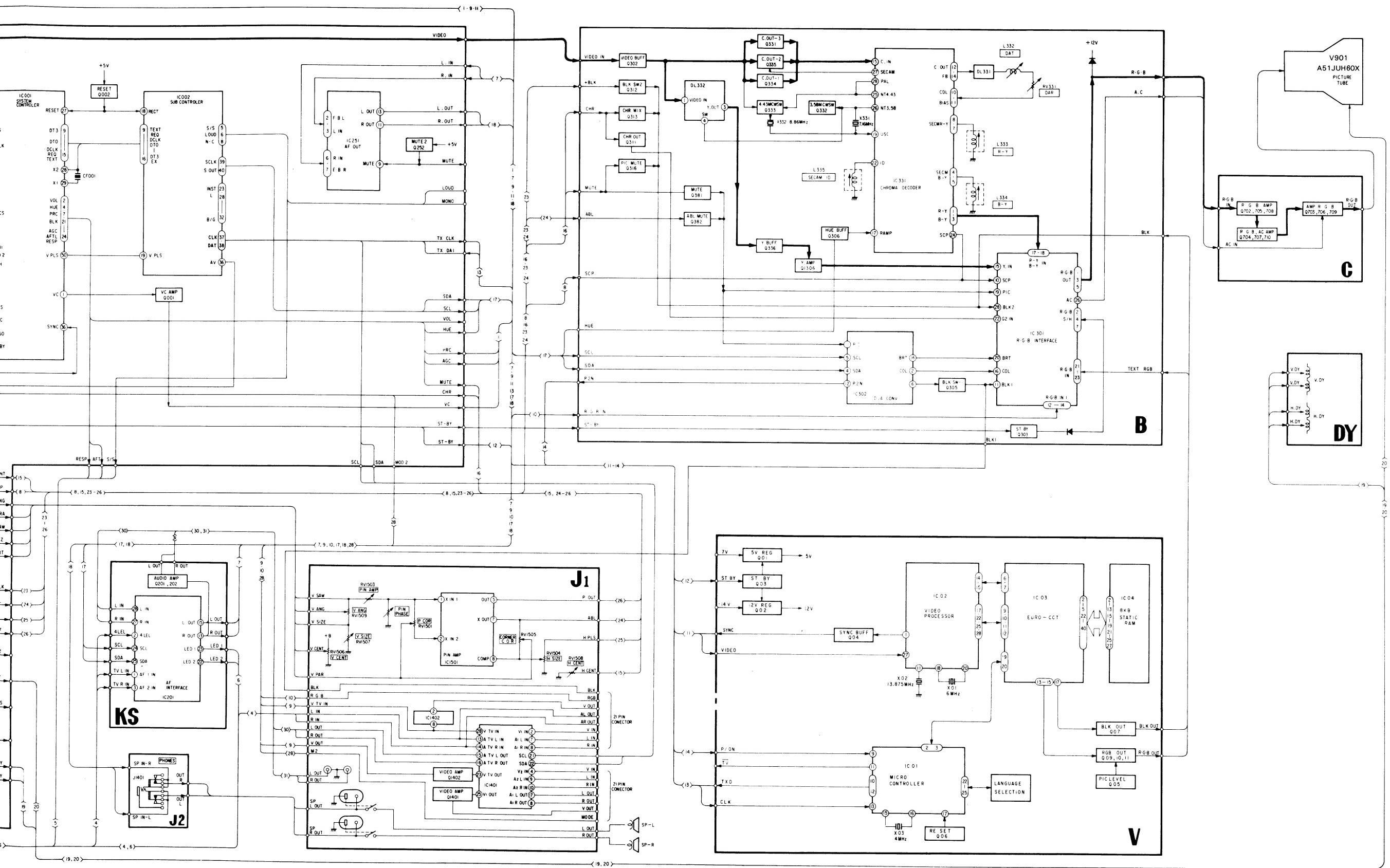
- \* When Step 4 is executed correctly, S (SUB mode) is displayed at the upper right of the display. As S (SUB mode) is displayed only for 30 seconds, perform the adjustment with 30 seconds, or repeat from Step 4.



## SECTION 5 DIAGRAMS

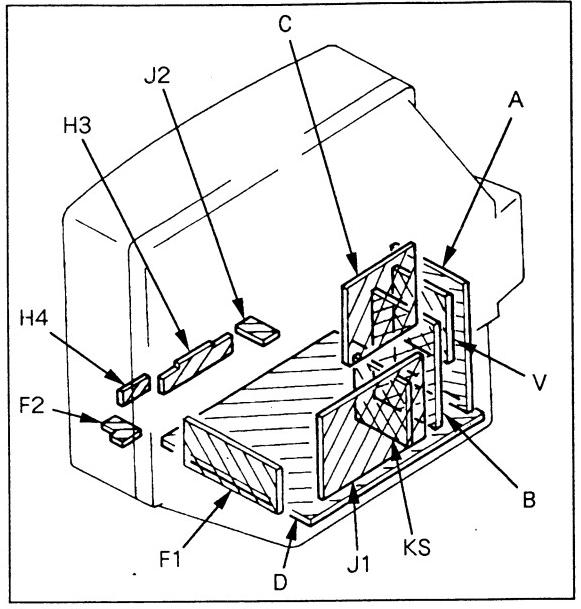
### 5-1. BLOCK DIAGRAM





### 5-3. SCHEMATIC DIAGRAMS

#### 5-2. CIRCUIT BOARDS LOCATION



##### Note :

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  
PF :  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

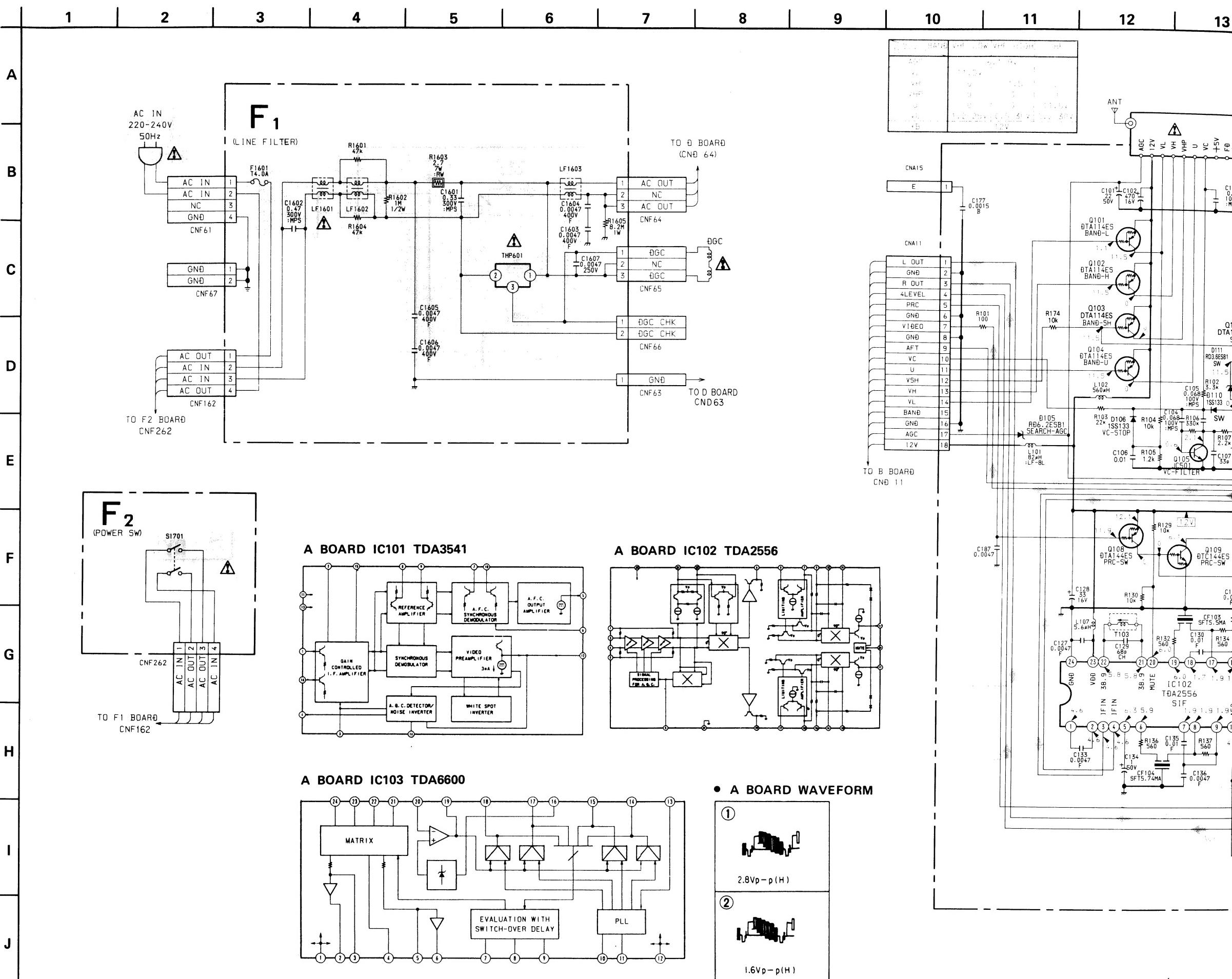
Pitch: 5 mm  
Rating electrical power 1/4W

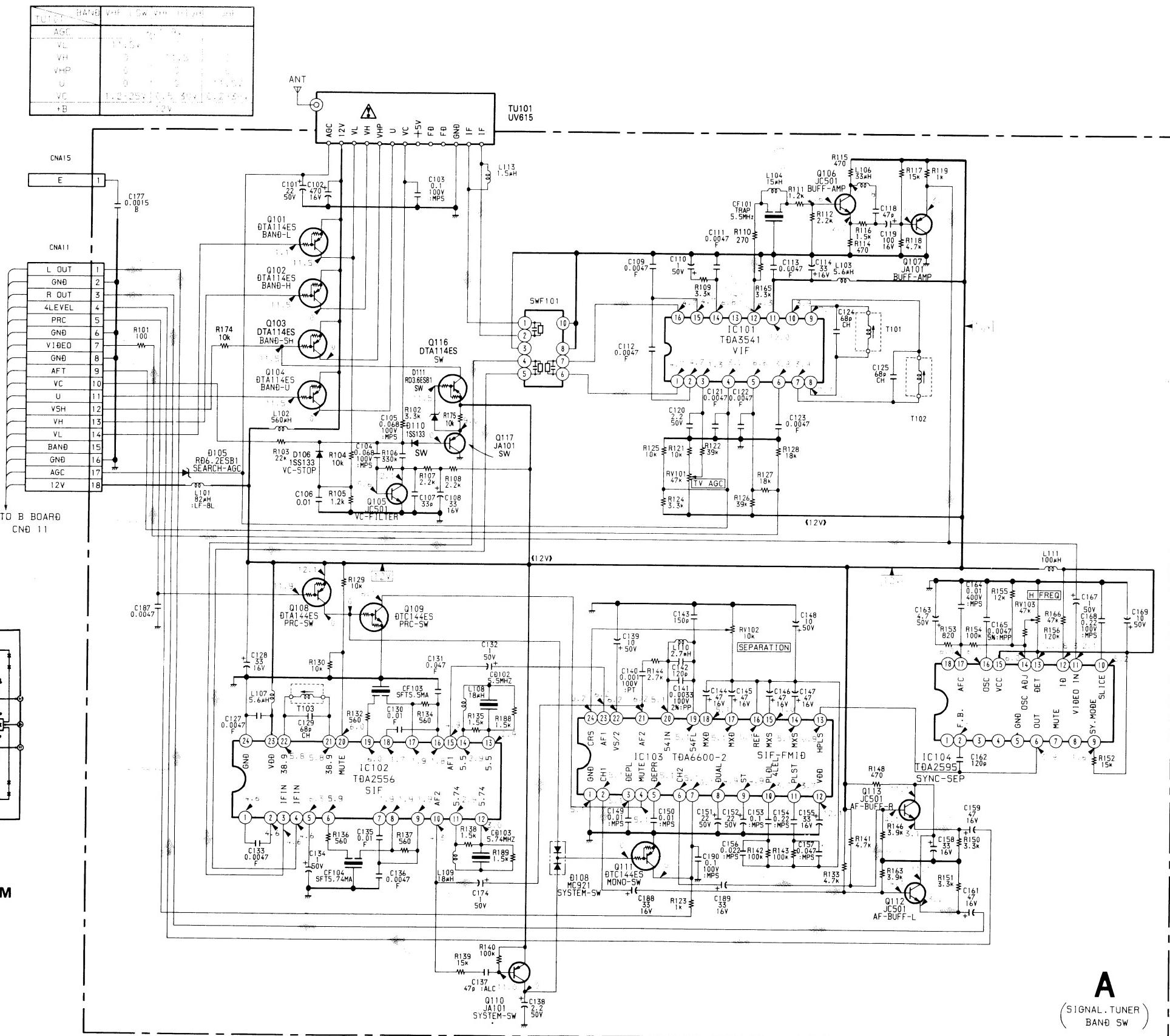
- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10 M $\Omega$  digital multimeter.
- Readings are taken with a PAL color-bar signal input.
- : adjustment for repair.
- Voltage variations may be noted due to normal production tolerance.
- : B+ bus.
- : B- bus.
- : signal path.

##### Reference information

RESISTOR	: RN METAL FILM
	: RC SOLID
	: FPRD NONFLAMMABLE CARBON
	: FUSE NONFLAMMABLE FUSIBLE
	: RW NONFLAMMABLE WIREWOUND
	: RS NONFLAMMABLE METAL OXIDE
	: RB NONFLAMMABLE CEMENT
COIL	: LF-8L MICRO INDUCTOR
CAPACITOR	: TA TANTALUM
	: PS STYROL
	: PP POLYPROPYLENE
	: PT MYLAR
	: MPS METALIZED POLYESTER
	: MPP METALIZED POLYPROPYLENE
	: ALB BIPOLAR
	: ALT HIGH TEMPERATURE
	: ALR HIGH RIPPLE

Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.





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A

B

C

D

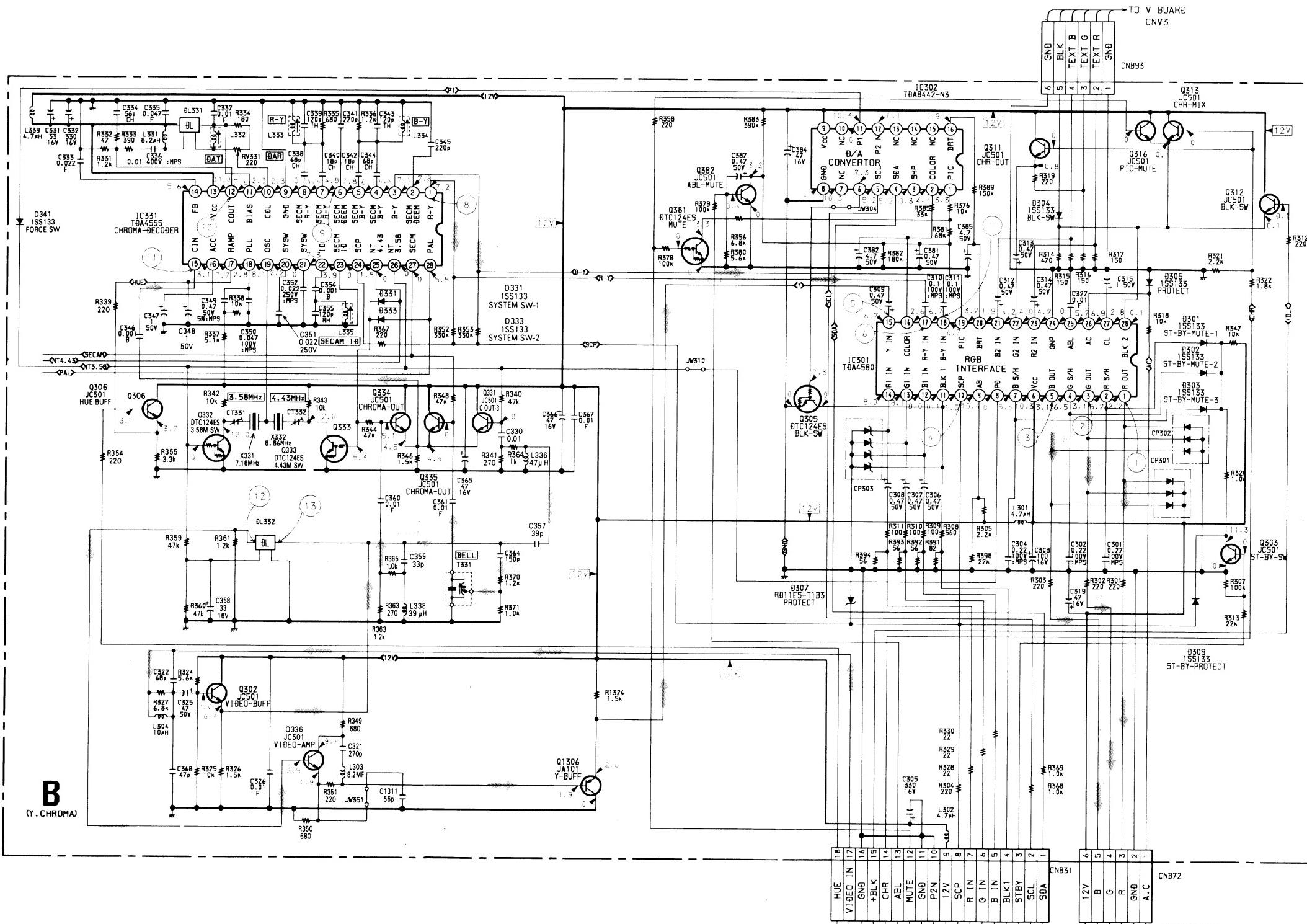
E

F

G

H

I

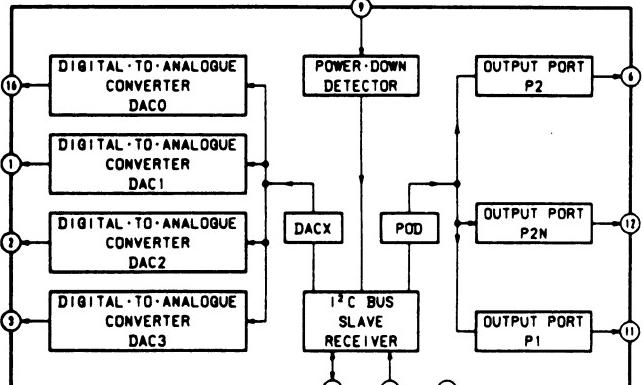


**A**  
(SIGNAL-TUNER  
BAND SW)

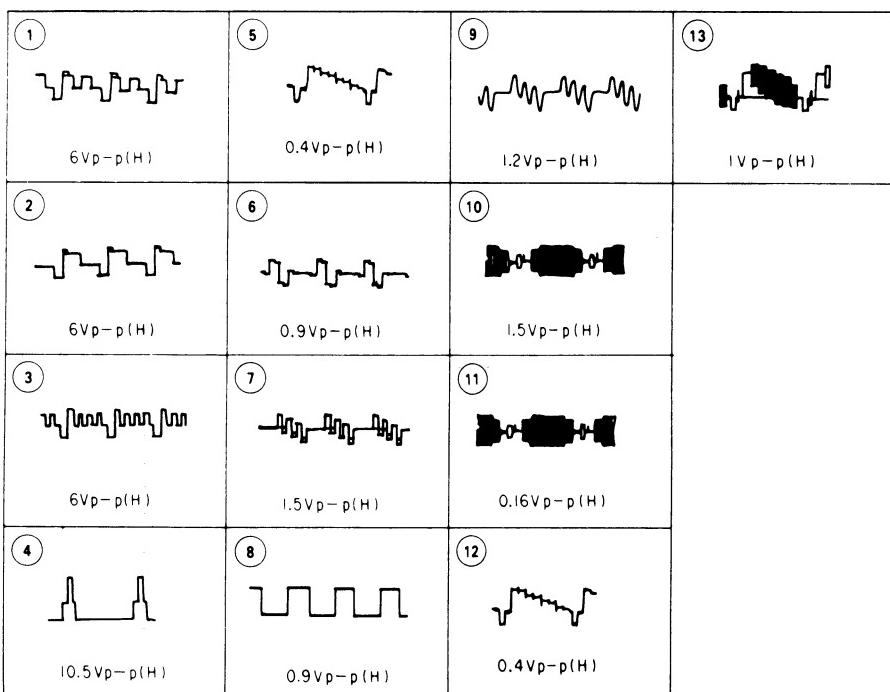
1 2 3 4 5 6 7 8 9 10 11

5-

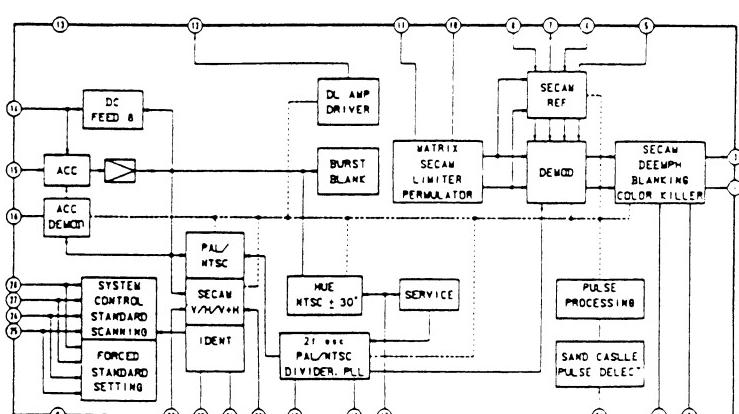
**B BOARD IC302 TDA8442**



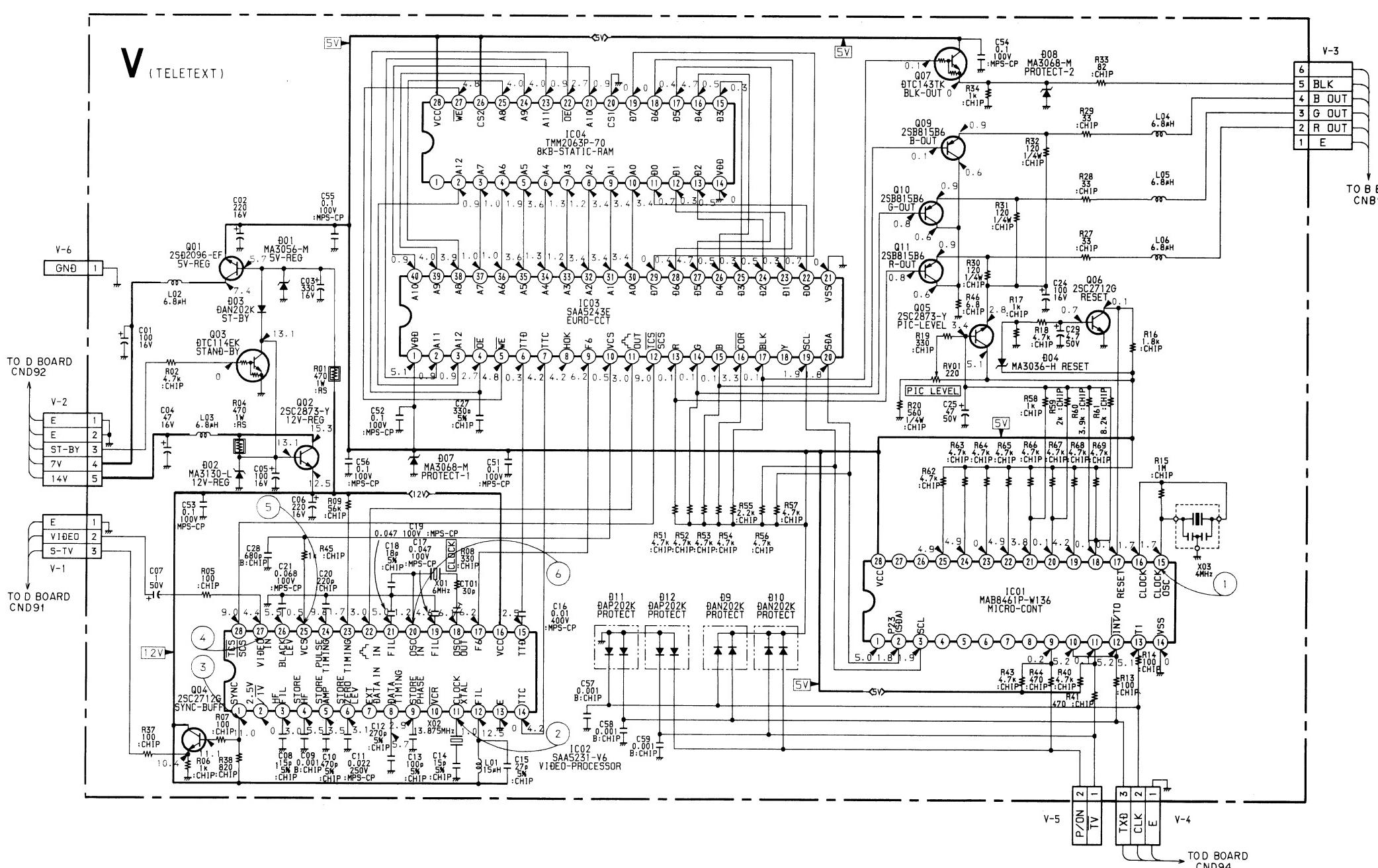
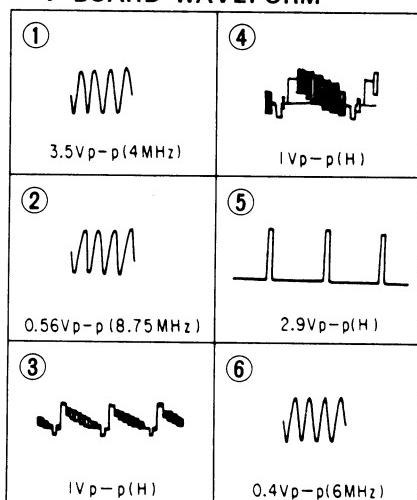
**B BOARD WAVEFORM**

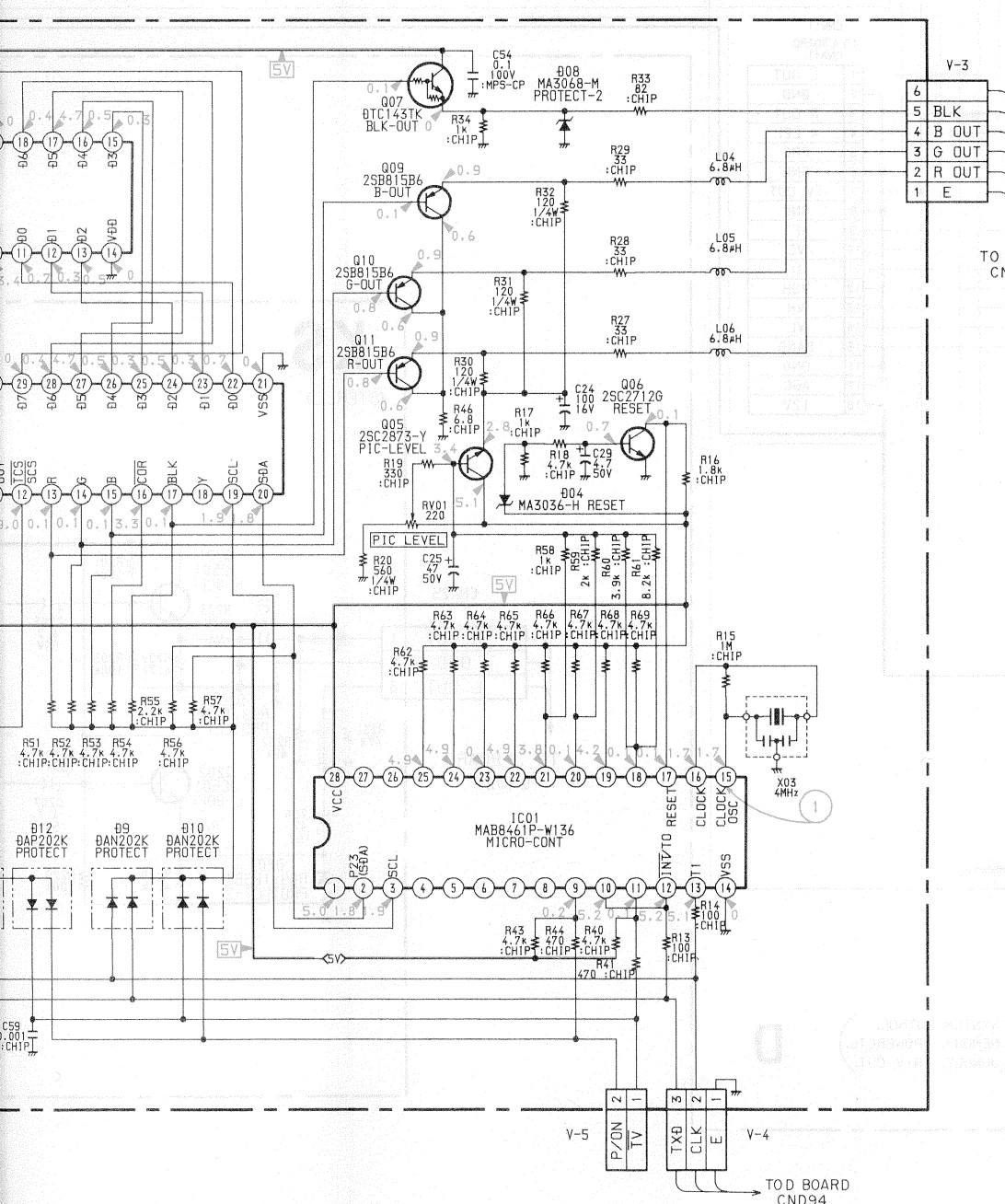
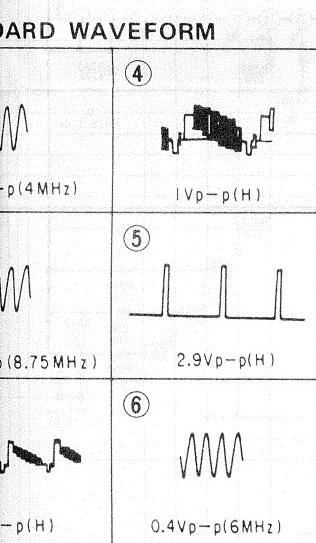
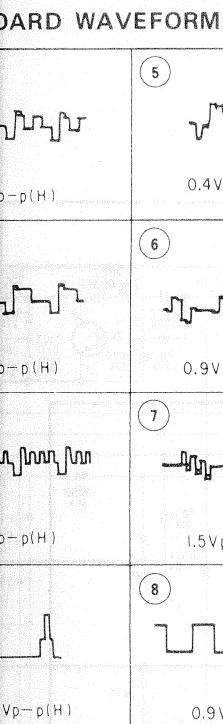
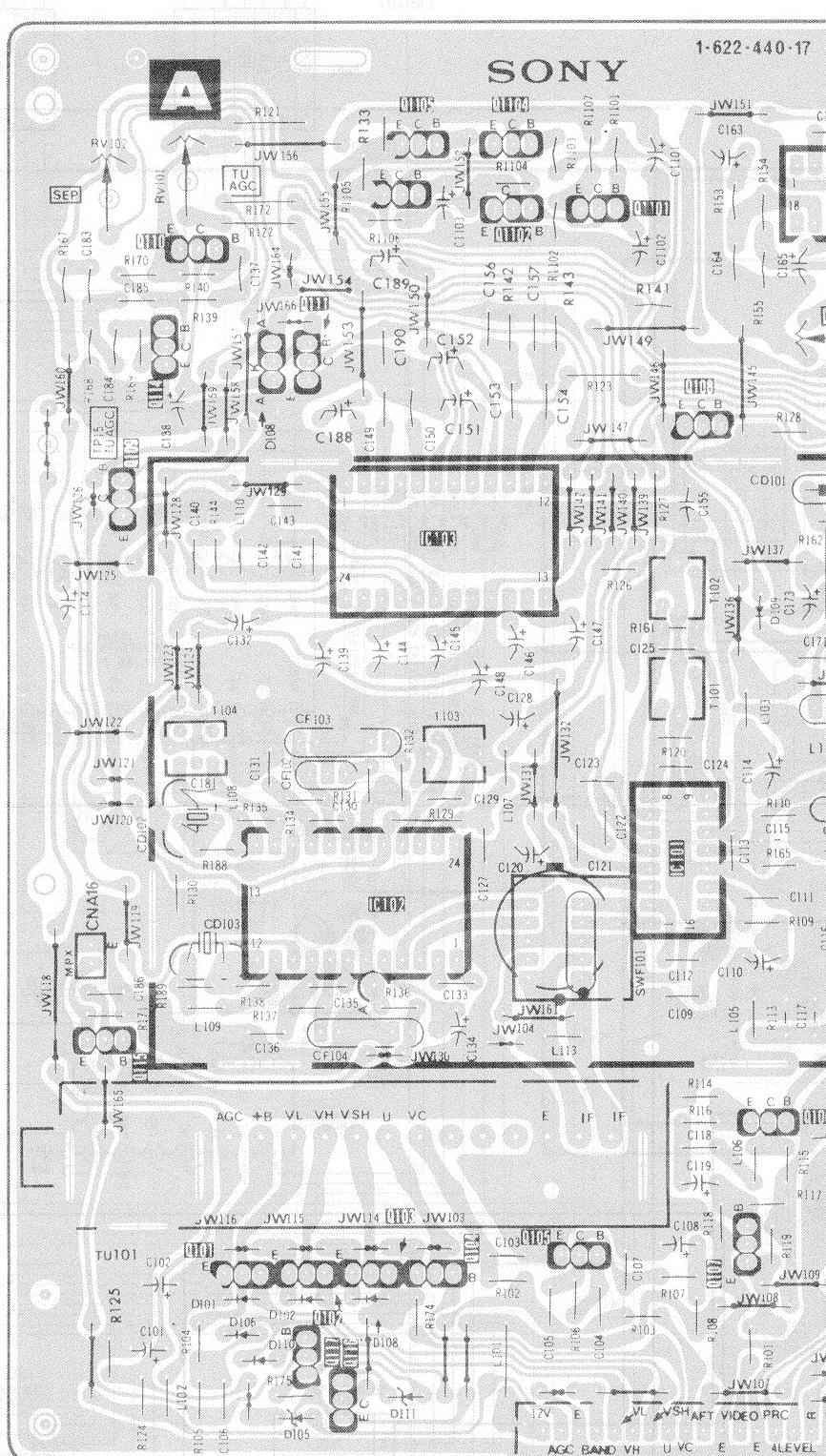
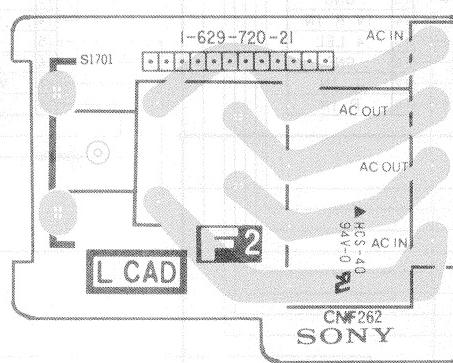


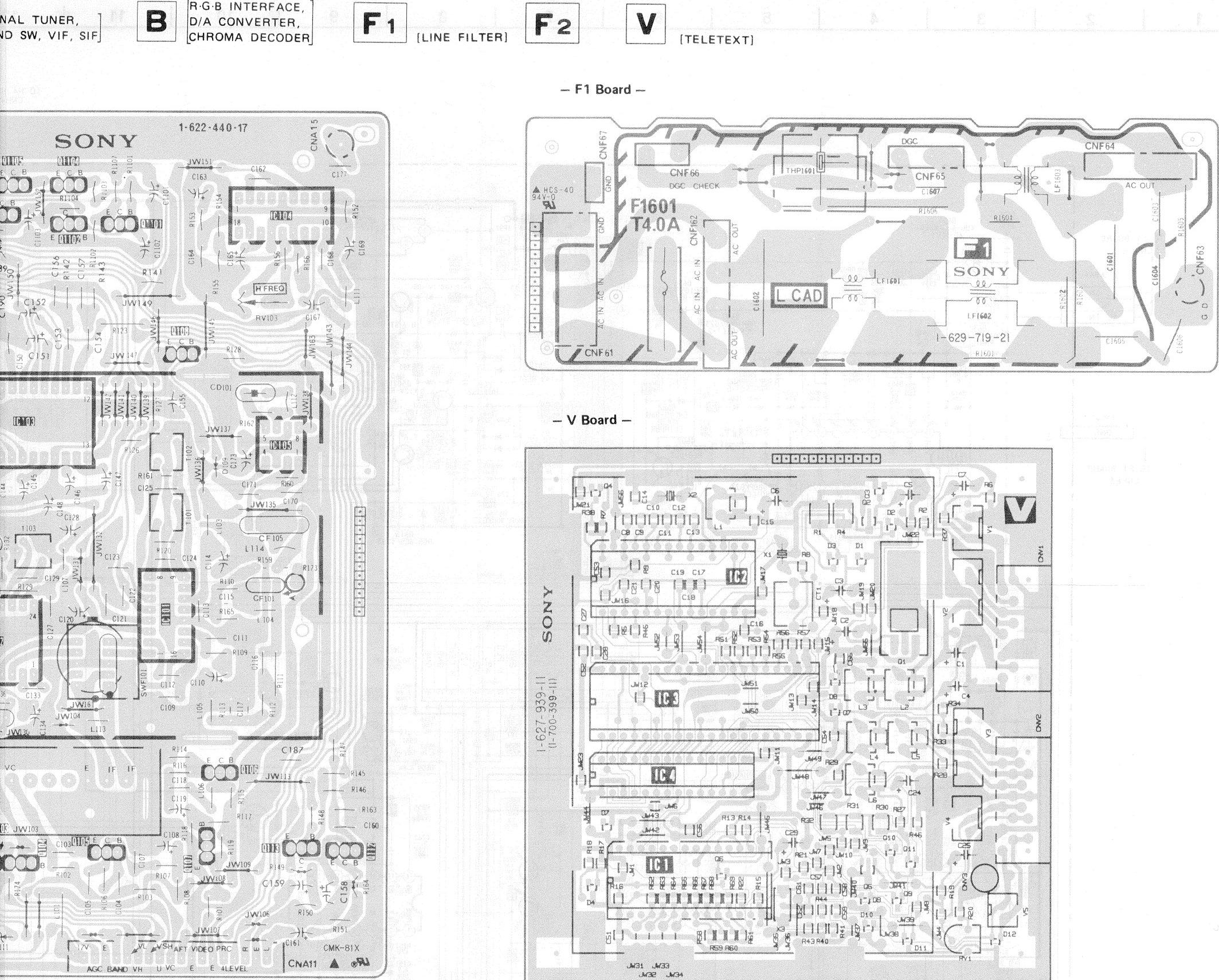
**B BOARD IC331 TDA4555**



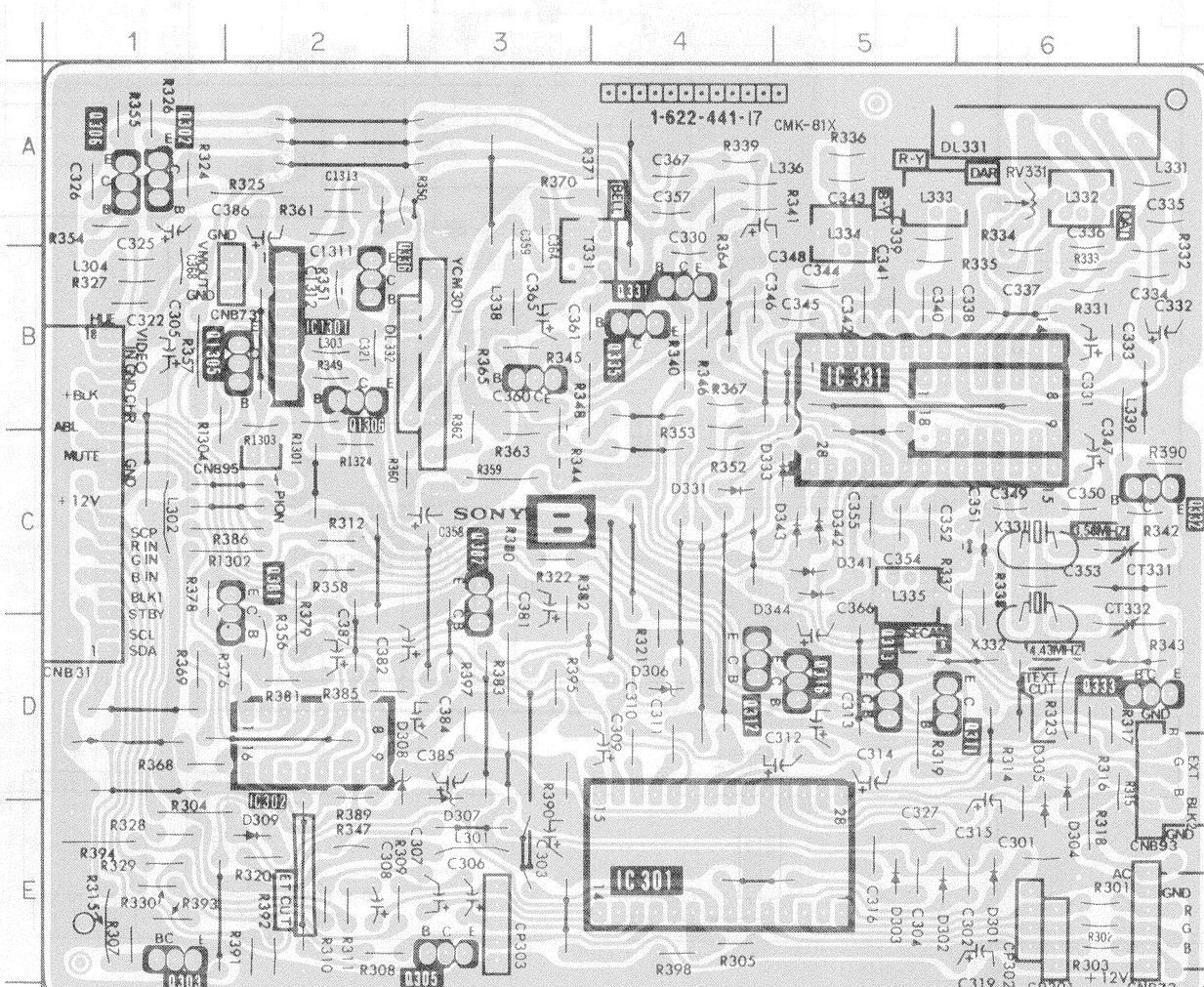
**V BOARD WAVEFORM**



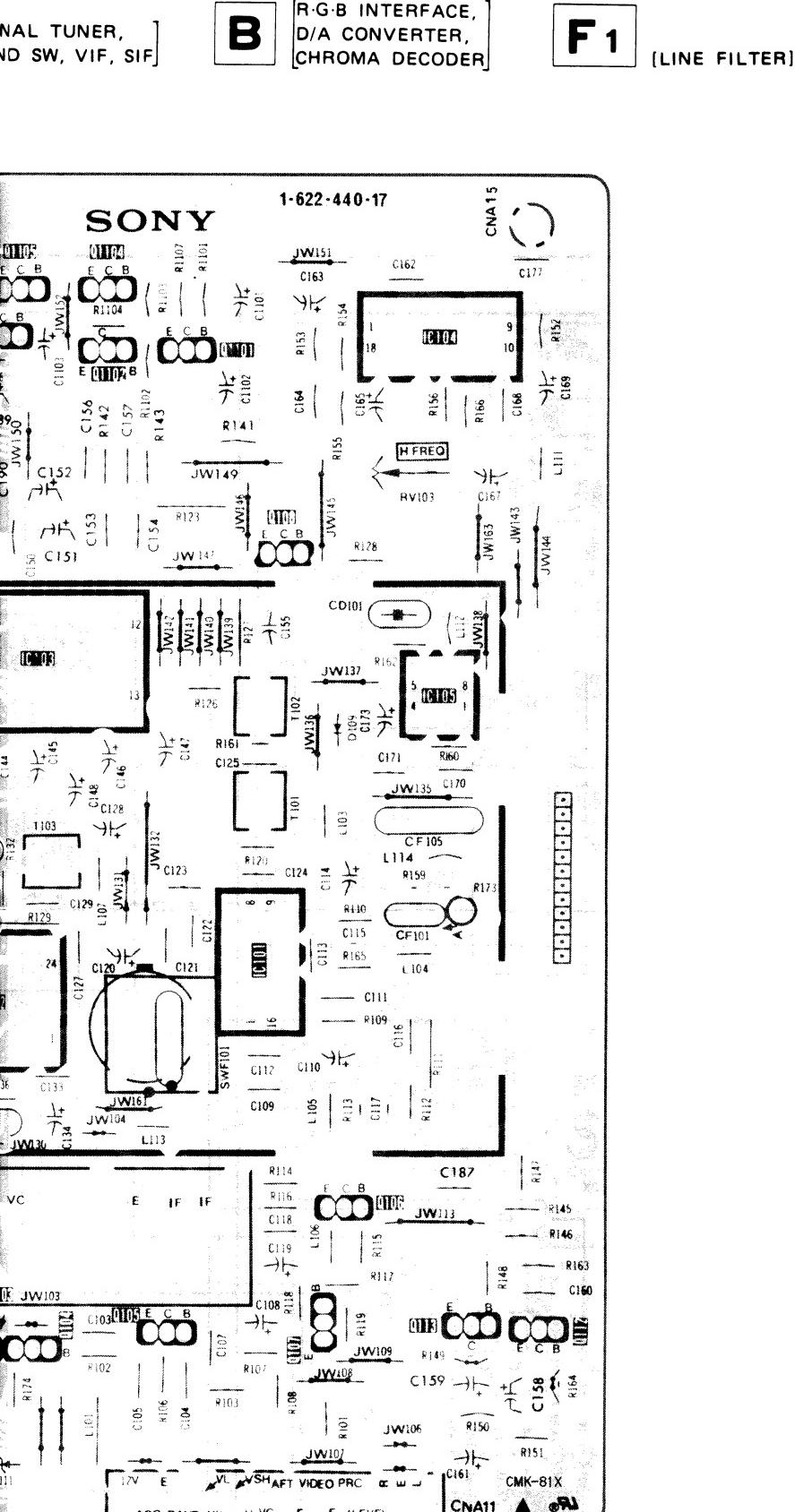
**A**SIGNAL TUNER,  
BAND SW, VIF, SIF**B**R.G-B INT  
D/A CONVE  
CHROMA D**- A Board -****- F2 Board -**



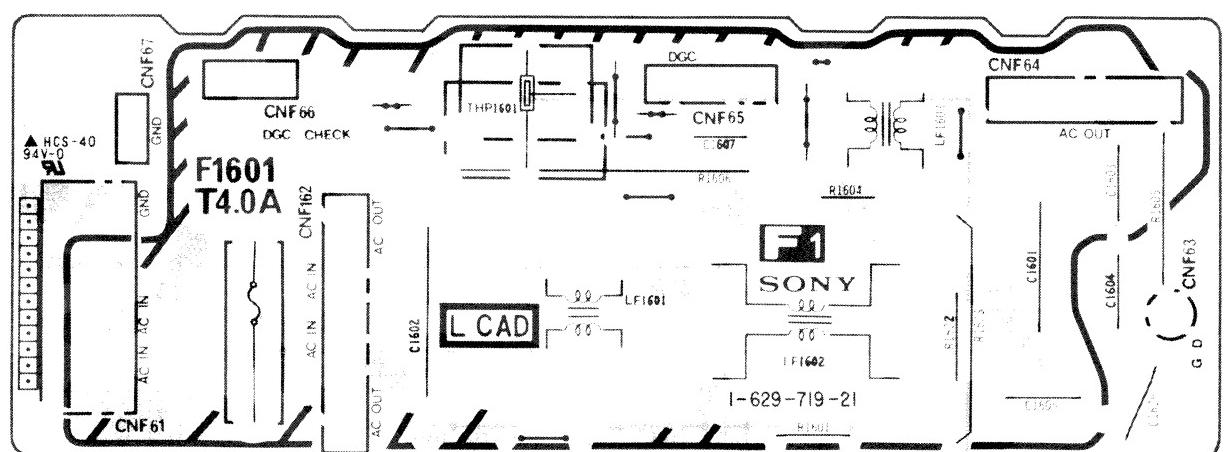
- B Board -



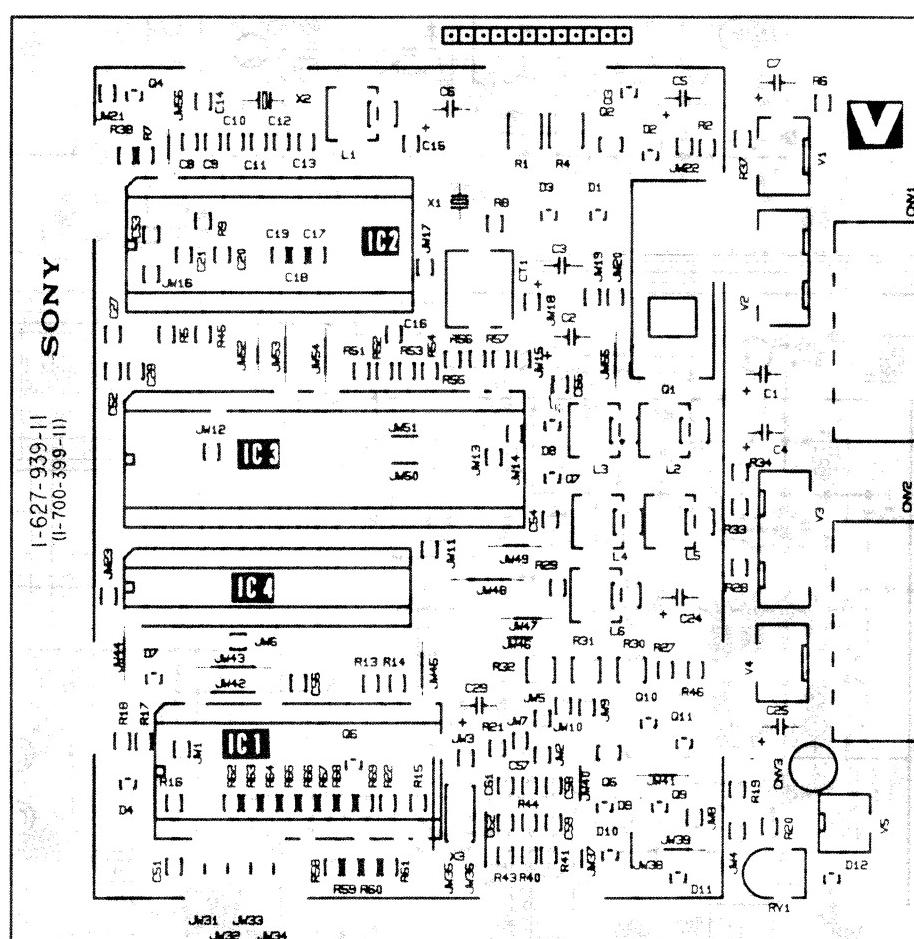
IC		DIODE	
IC301	E-4	D301	E-6
IC302	D-2	D302	E-5
IC331	B-5	D303	E-5
		D304	E-6
		D305	E-6
<b>TRANSISTOR</b>			
Q302	A-1	D307	E-3
Q303	E-1	D309	E-2
Q305	E-3	D331	C-4
Q306	A-1	D333	C-5
Q311	D-5	D341	C-5
Q312	D-4		
Q313	D-5		
Q316	D-5		
Q331	B-4	<b>VARIABLE RESISTOR</b>	
Q332	C-6	RV331	A-6
Q333	D-6	CT331	C-6
Q334	B-3	CT332	D-6
Q335	B-4		
Q336	B-2		
Q381	C-2		
Q382	C-3		
Q1316	B-2		



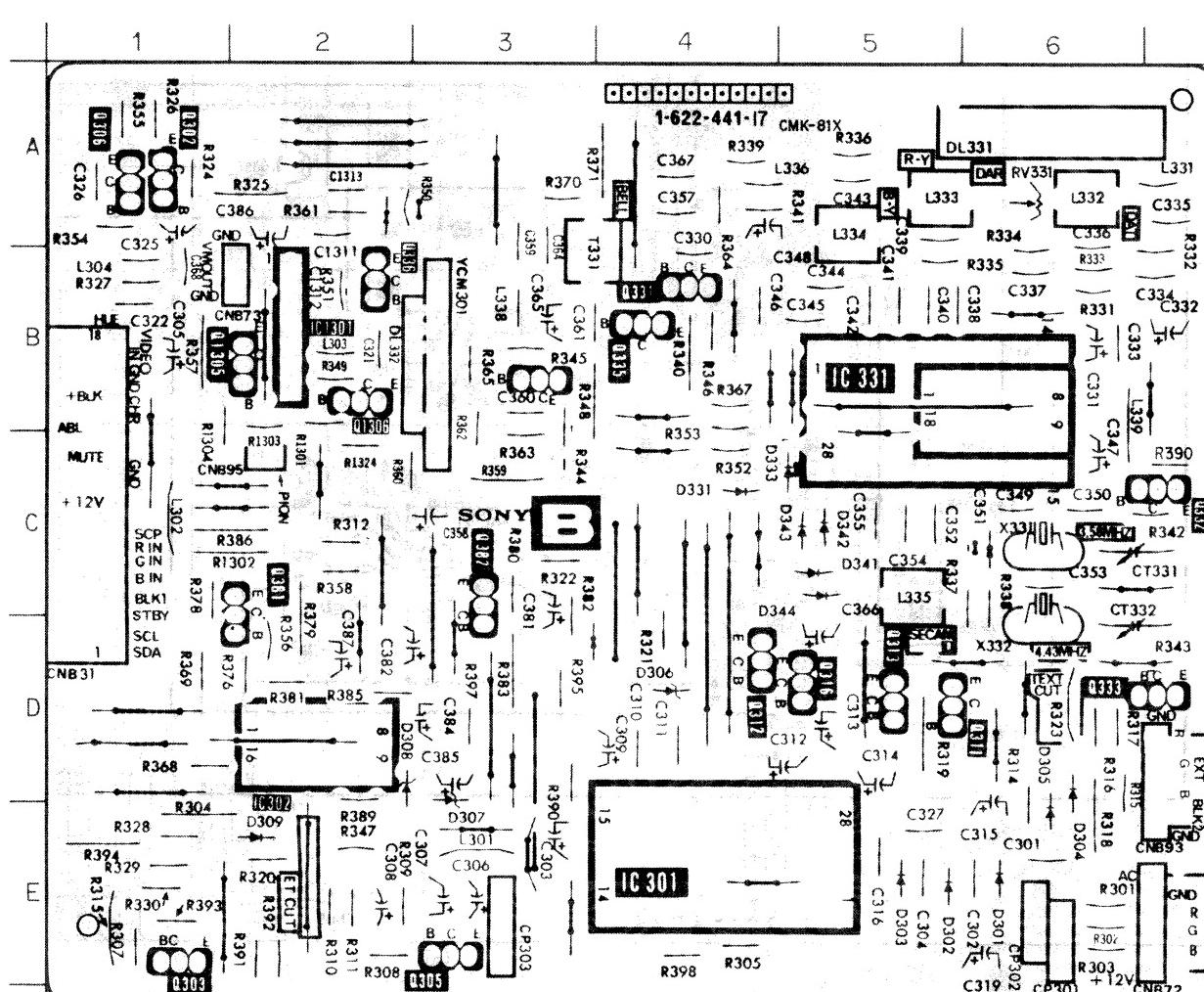
– F1 Board –



- V Board -

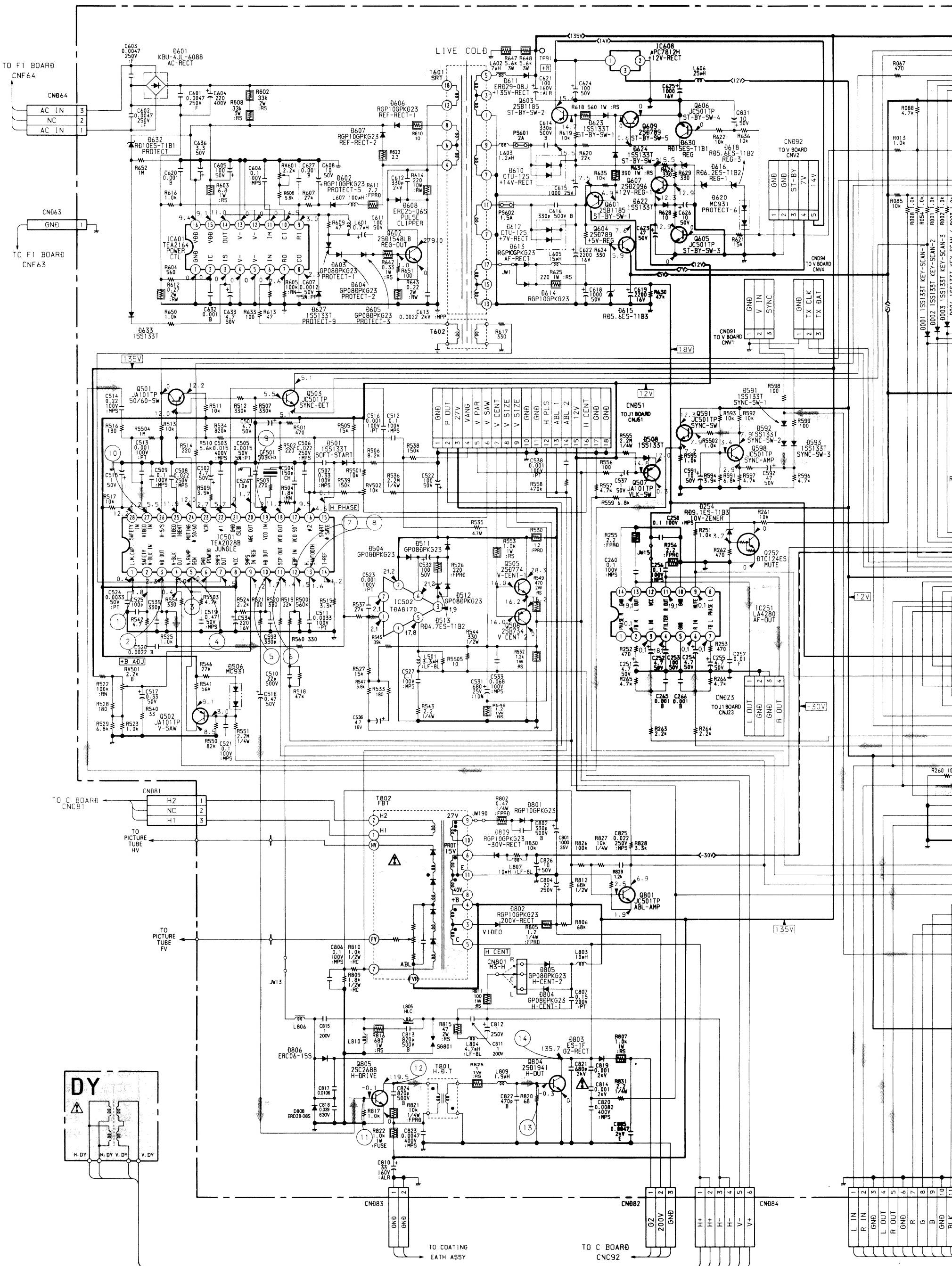


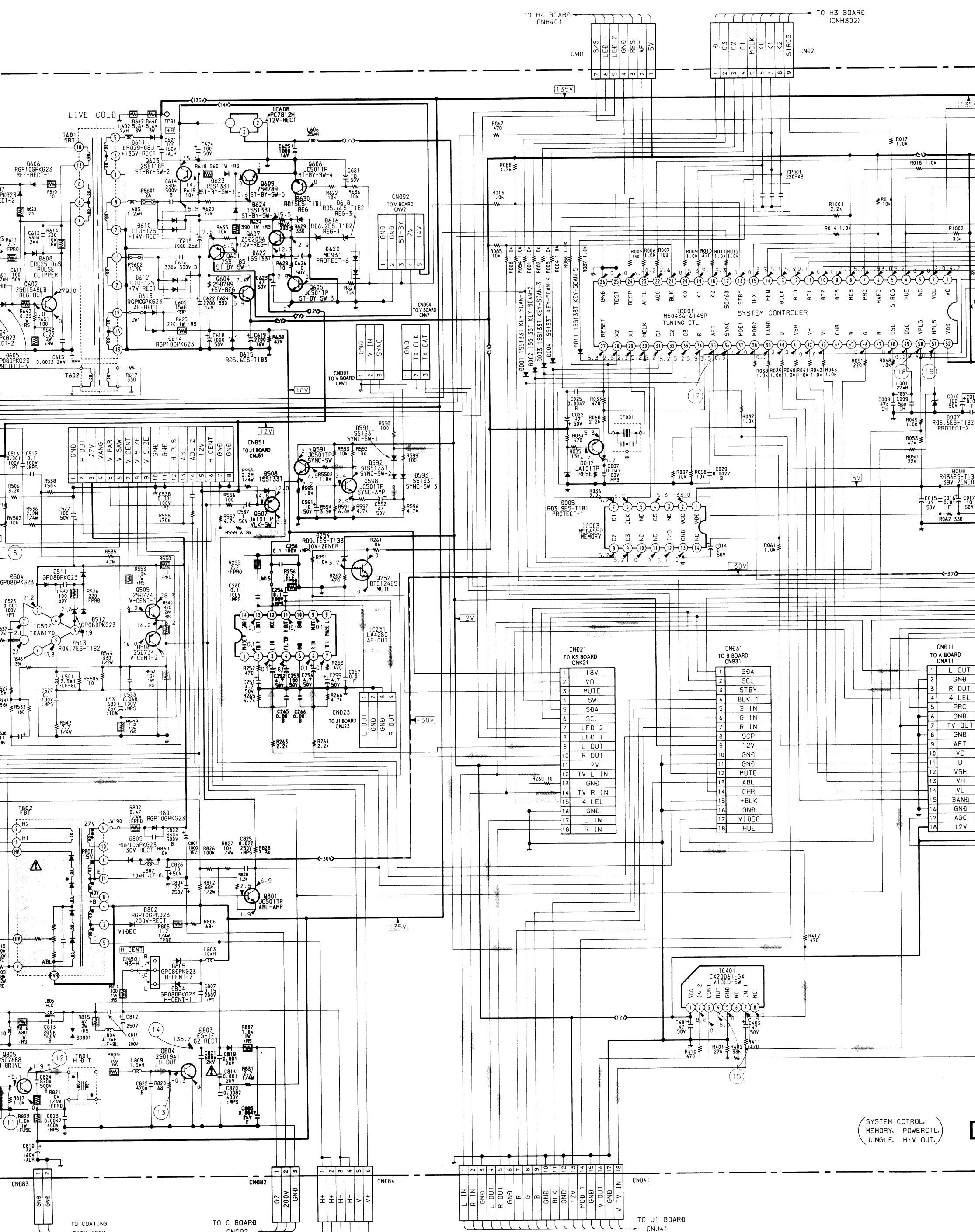
B Board



IC		DIODE	
IC301	E-4	D301	E-6
IC302	D-2	D302	E-5
IC331	B-5	D303	E-5
TRANSISTOR		D304	E-6
		D305	E-6
Q302	A-1	D307	E-3
Q303	E-1	D309	E-2
Q305	E-3	D331	C-4
Q306	A-1	D333	C-5
Q311	D-5	D341	C-5
Q312	D-4	VARIABLE RESISTOR	
Q313	D-5	RV331	
Q316	D-5	A-6	
Q331	B-4	CT331	
Q332	C-6	C-6	
Q333	D-6	CT332	
Q334	B-3	D-6	
Q335	B-4		
Q336	B-2		
Q381	C-2		
Q382	C-3		
Q1316	B-2		

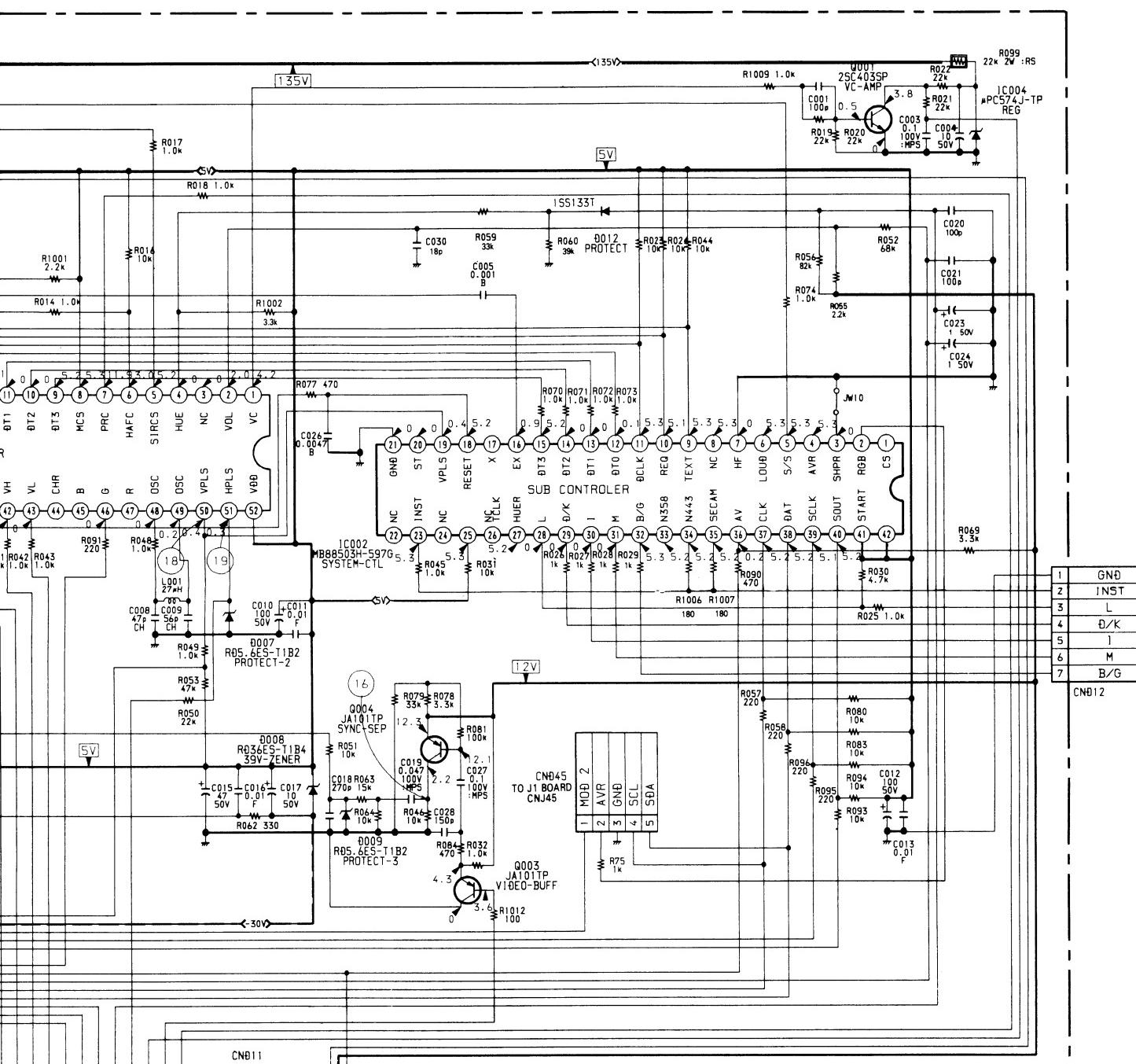
TO H4  
CNH





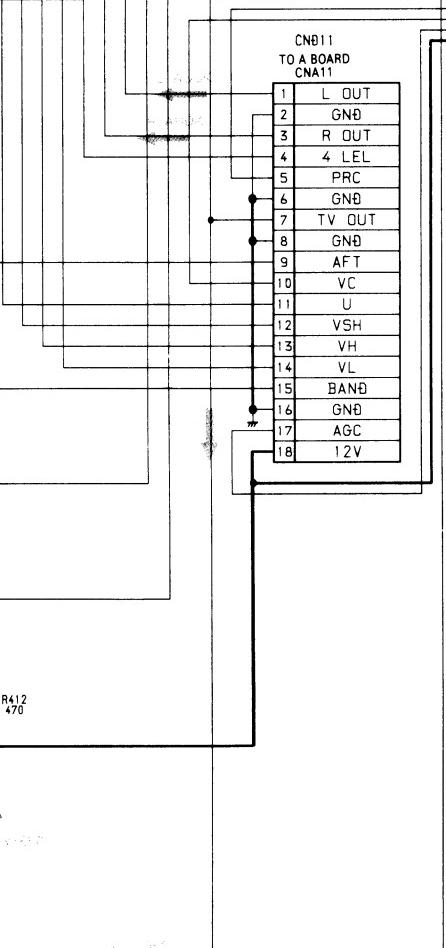
→ TO H3 BOARD  
(CNH302)

NB2



CNB12

1	GND
2	INST
3	L
4	D/K
5	I
6	M
7	B/G



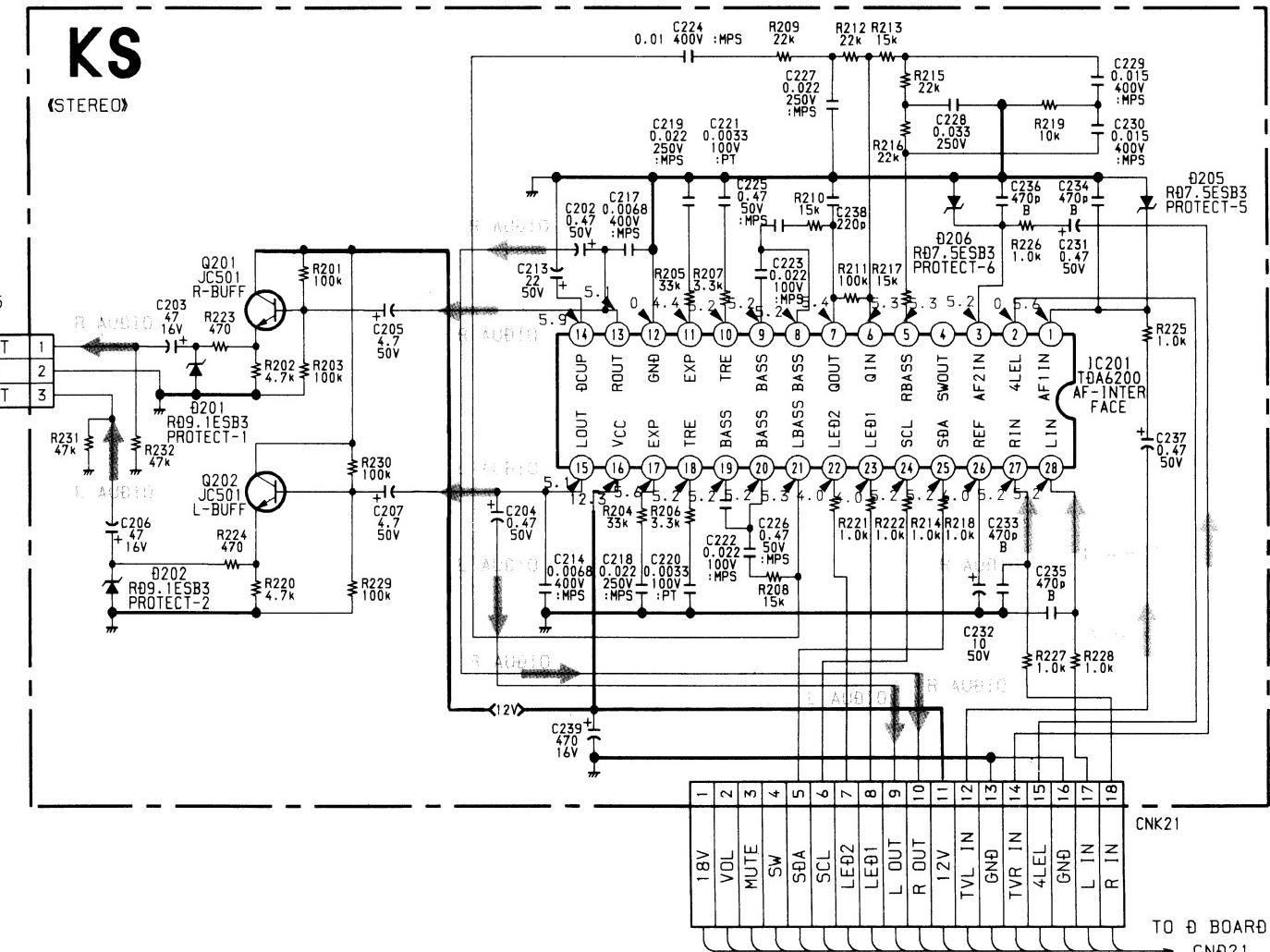
(SYSTEM COTROL,  
MEMORY, POWERCTL,  
JUNGLE, H-V OUT.)

D

KS

(STEREO)

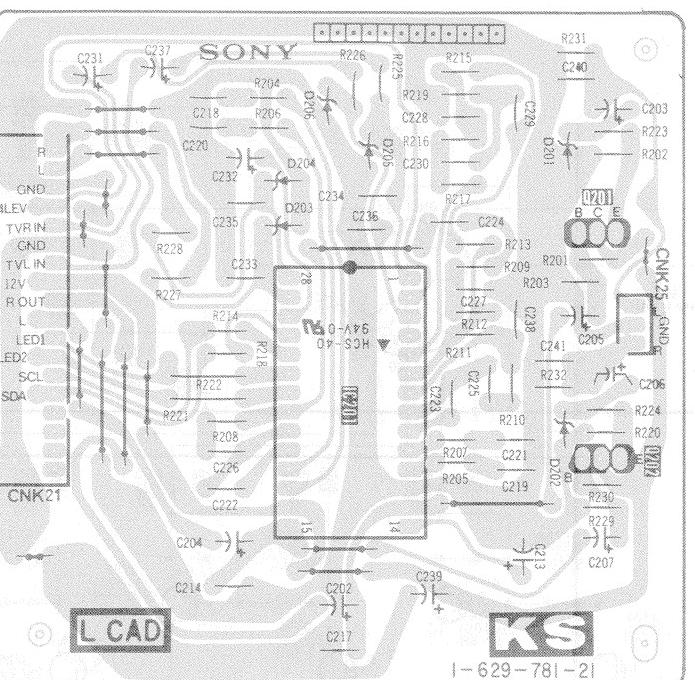
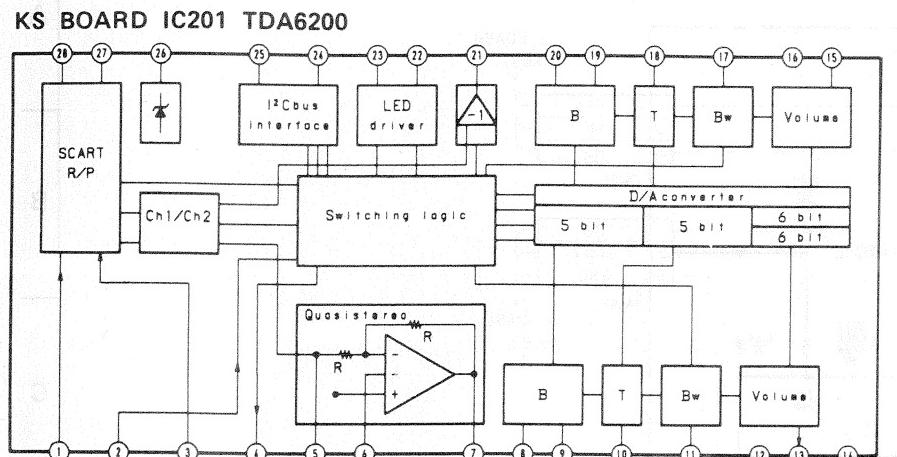
CNK25  
TO J1 BOARD  
CNJ25



CNK21  
TO D BOARD  
CND21

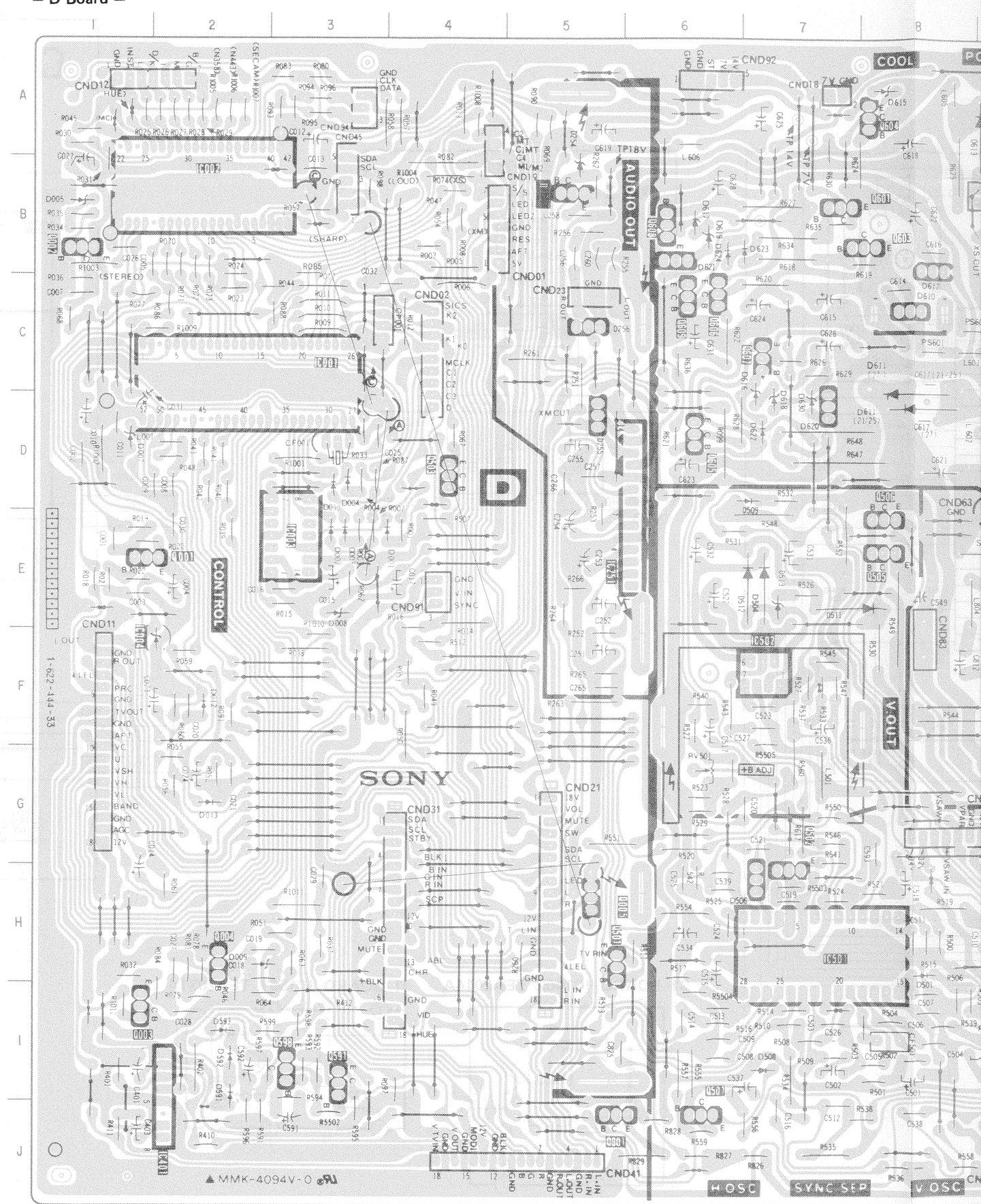
**Ks** [AF INTERFACE]

— KS Board —

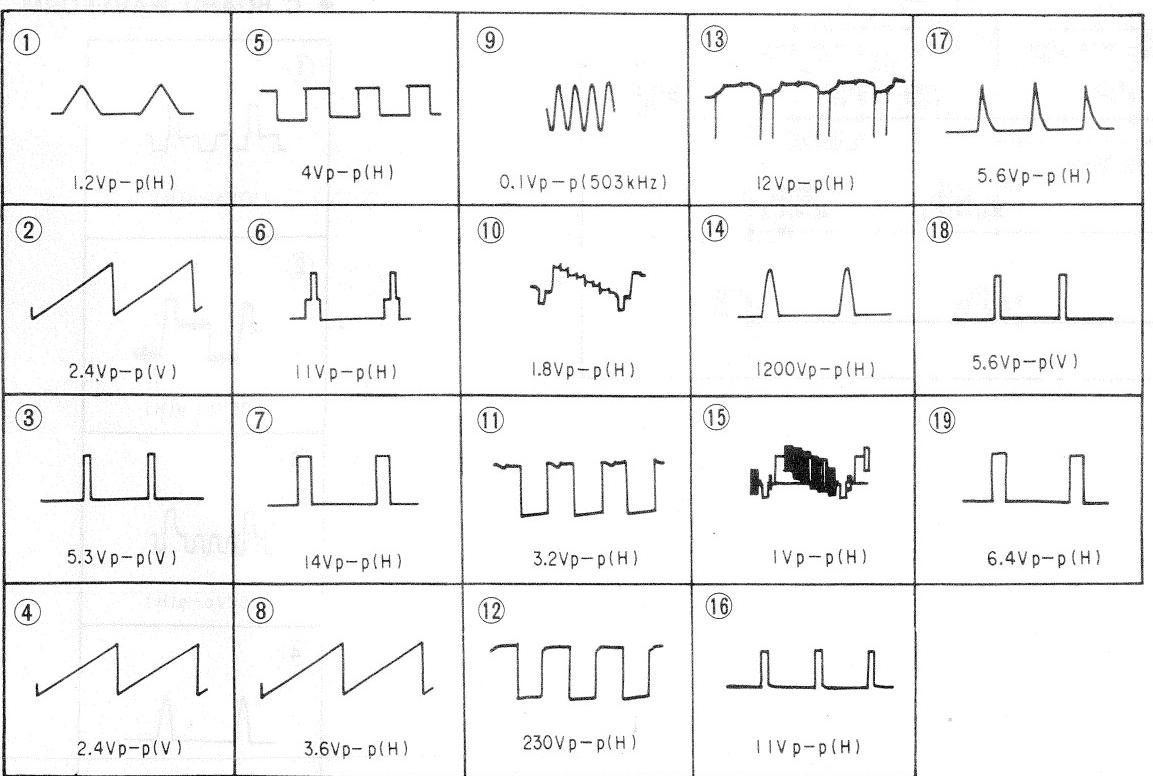


**D** [AF OUT, Y-CHROMA,  
JUNGLE, V-H DEF]

— D Board —

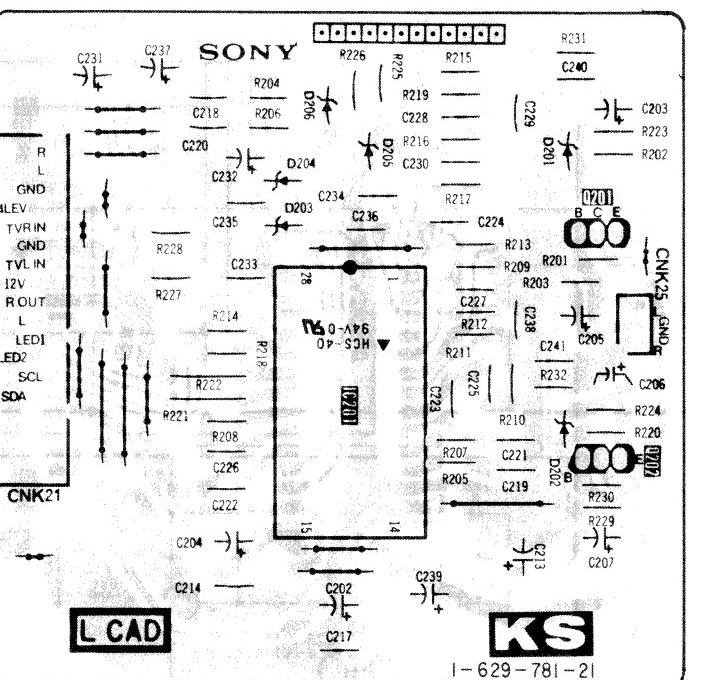
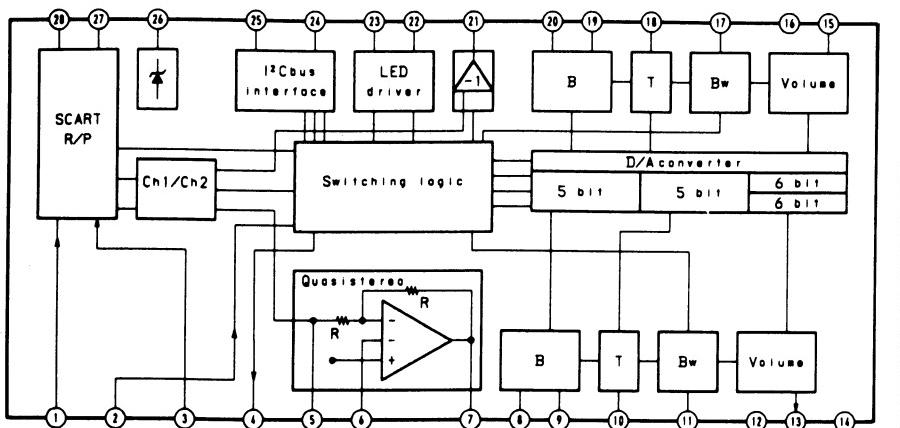
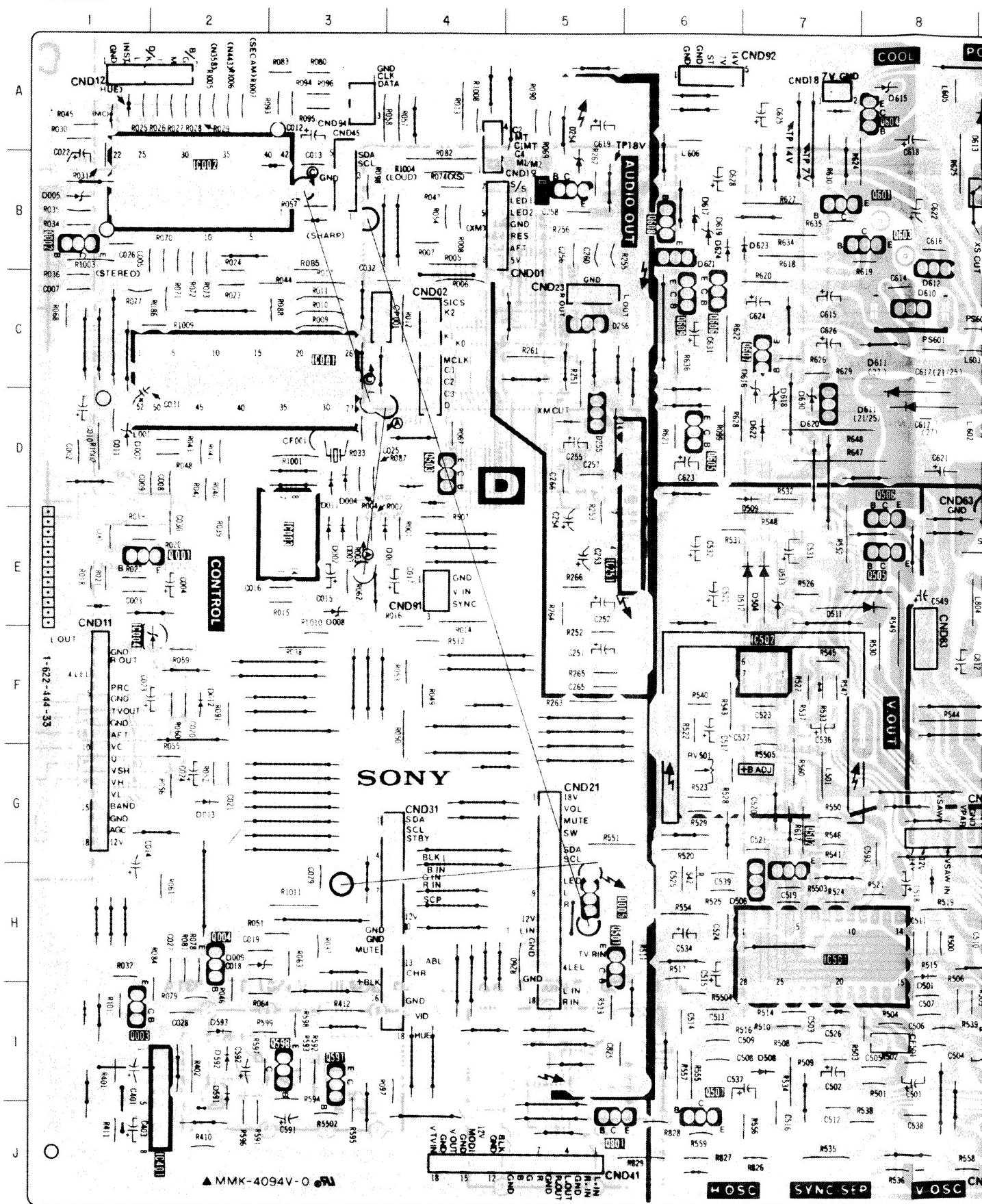
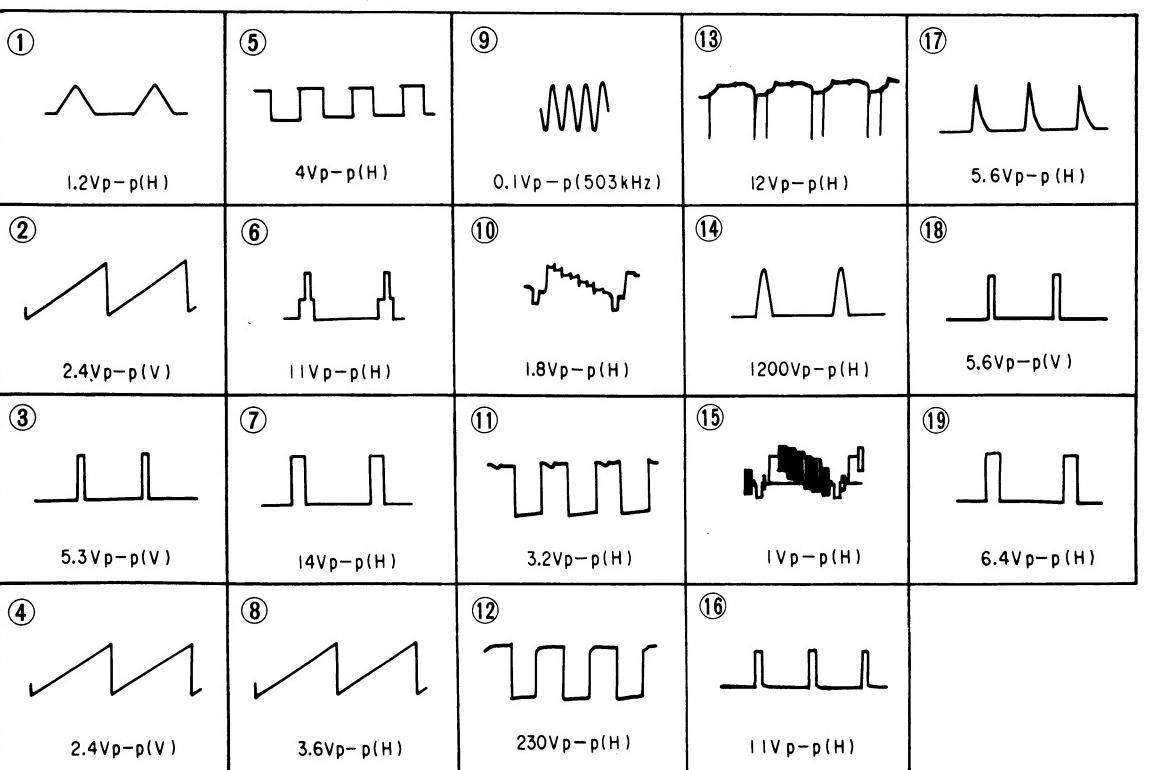


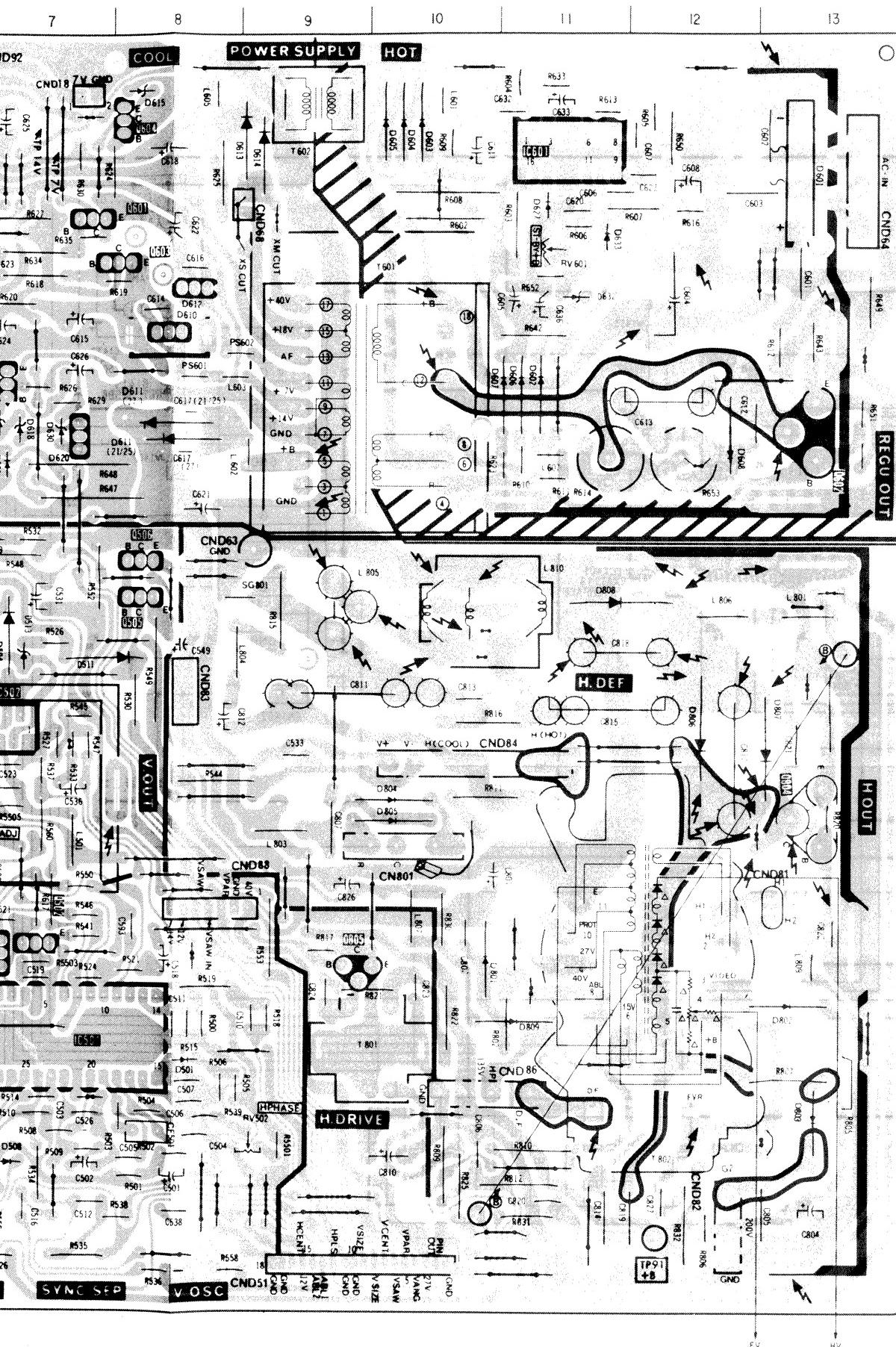
• D BOARD WAVEFORM



**Ks**

[AF INTERFACE]

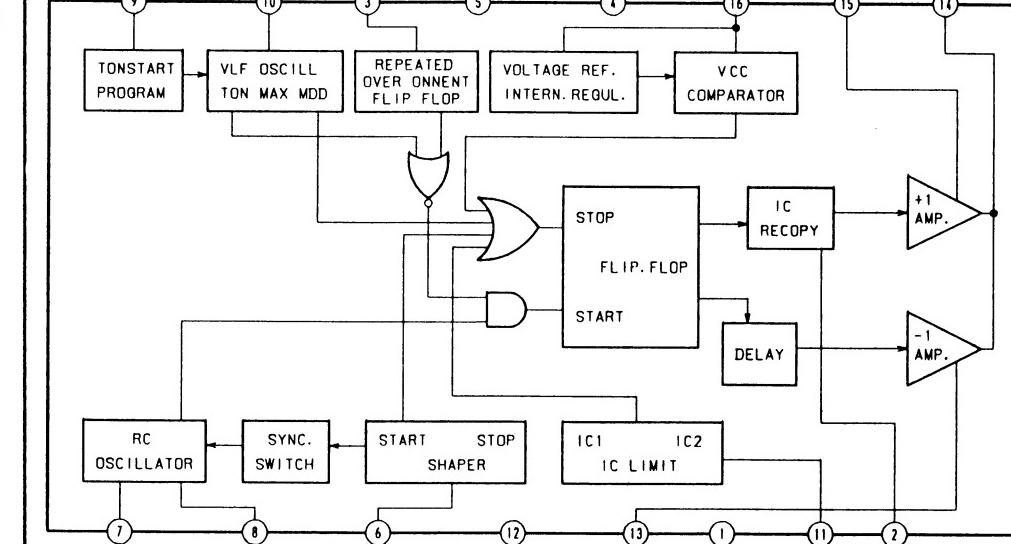
**- KS Board -****KS BOARD IC201 TDA6200****D**[AF OUT, Y-CHROMA,  
JUNGLE, V-H DEF]**- D Board -****• D BOARD WAVEFORM**



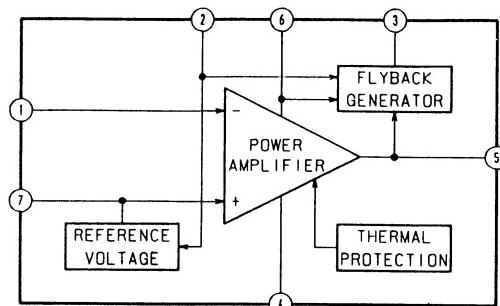
D BOARD IC501 TEA2028A

IC	DIODE
IC001 IC002 IC003 IC004 IC251	D-3 E-3 F-2 E-6
IC401 IC501 IC502 IC601	J-2 H-7 F-7 B-11
	D001 D002 D003 D004 D005
	E-4 E-3 E-3 D-3 B-1
	D007 D008 D009 D011 D012 D013
	D-1 F-1 I-3 E-3 F-2 G-2
Q001 Q002 Q003 Q004 Q252	E-2 B-1 I-2 H-2 B-6
Q501 Q502 Q503 Q505 Q506	H-6 H-7 D-4 E-8 E-8
Q507 Q591 Q598 Q601 Q602	J-6 I-3 I-3 B-8 D-13
Q603 Q604 Q605 Q606 Q607	B-8 A-8 D-6 C-6 C-7
Q608 Q609 Q801 Q804 Q805	A-10 D-601 D-602 D-603 D-604
	C-11 C-11 A-10 A-10
	D-605 D-606 D-607 D-608 D-610
	B-8 C-8 A-9 B-9 A-8
	D-611 D-612 D-613 D-614 D-615
	D-8 D-616 D-617 D-618 D-619
	B-6 D-620 D-621 D-622 D-623
	D-7 B-6 D-7 B-6 D-8
	C-6 D-624 D-625 D-626 D-627
	D-7 C-11 C-11 H-11 H-13
	D-630 D-632 D-633 D-801 D-802
	I-13 G-10 G-10 F-12 E-12
	D-803 D-804 D-805 D-806 D-808
	H-11
	D-809
	VARIABLE RESISTOR
	RV501 RV502 RV601
	G-6 I-9 B-11

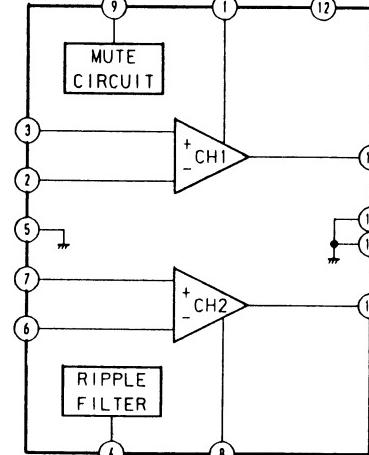
D BOARD IC601 TEA2164



D BOARD IC502 TDA8170

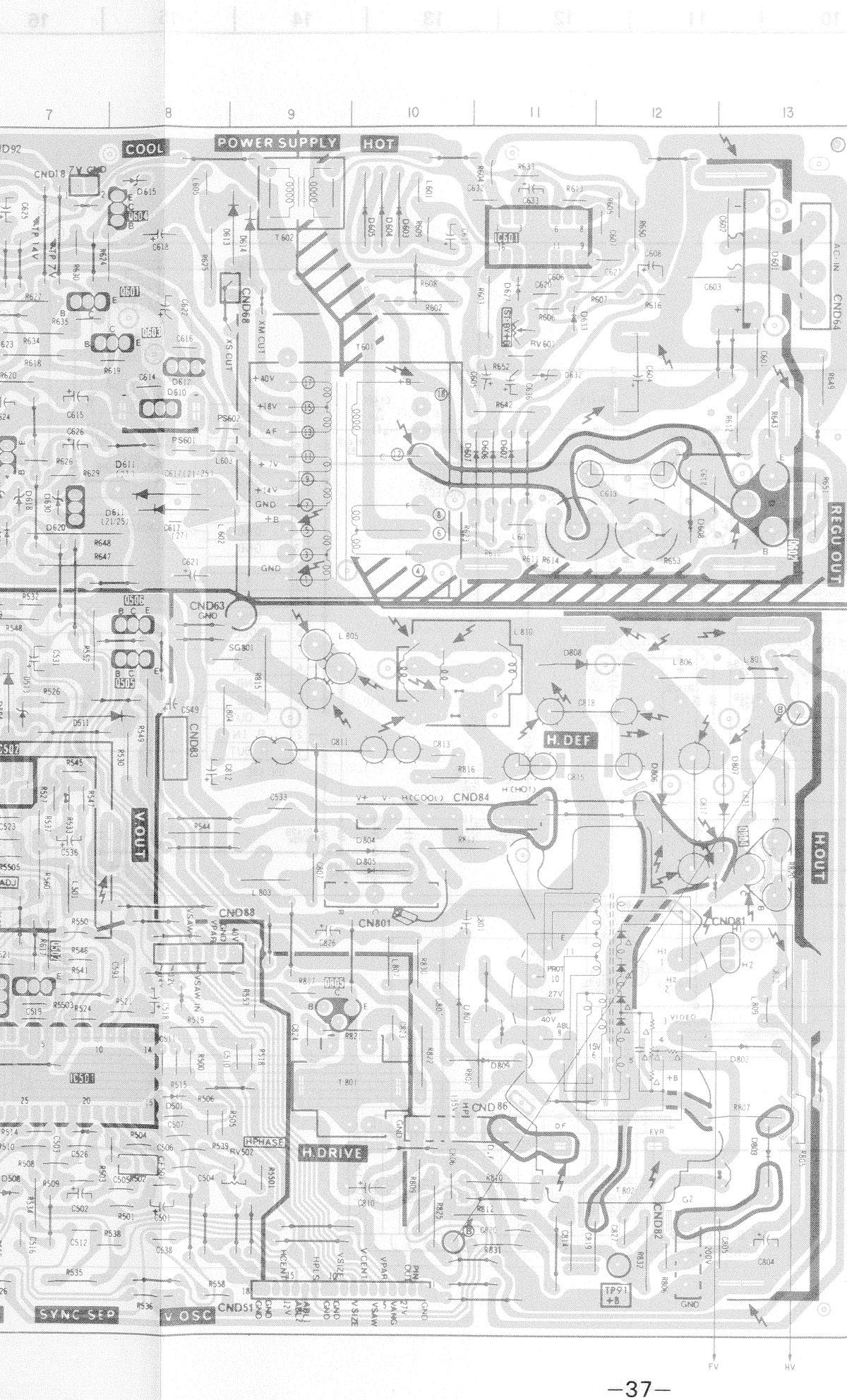


D BOARD IC251 LA4280



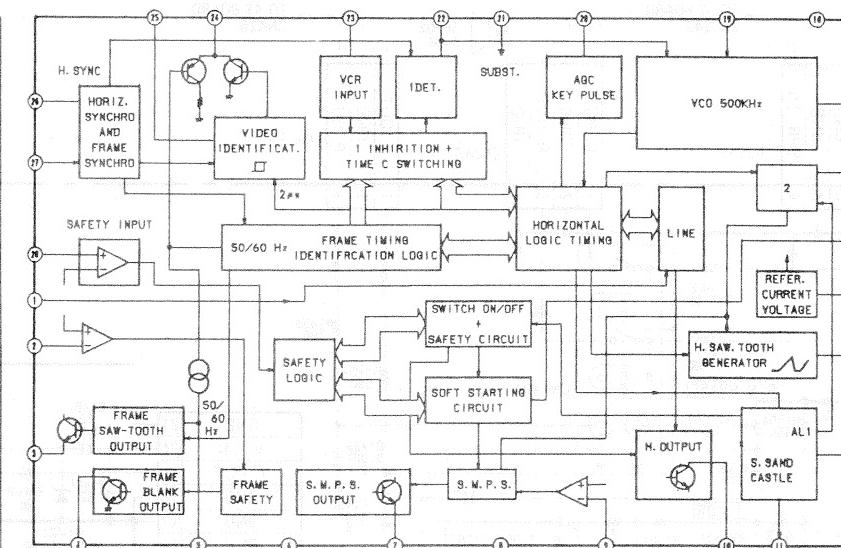
NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

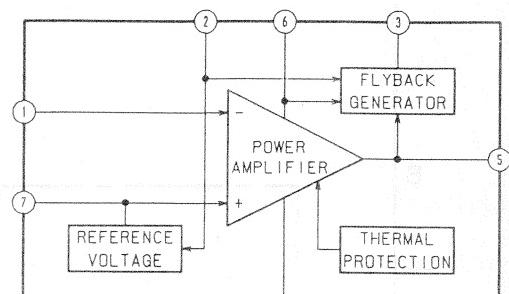


IC	DIODE
IC001 IC002 IC003 IC004 IC251	D-3 D-2 E-3 F-2 E-6
IC401 IC501 IC502 IC601	J-2 H-7 F-7 B-11
	D001 D002 D003 D004 D005
	E-4 E-3 D-3 B-1
	D007 D008 D009 D011 D012 D013
	D-1 F-1 E-3 E-2 G-2
TRANSISTOR	
Q001 Q002 Q003 Q004 Q252	E-2 B-1 I-2 H-2 B-6
Q501 Q502 Q503 Q505 Q506	H-6 H-7 D-4 E-8 E-8
Q507 Q591 Q598 Q601 Q602	J-6 I-3 I-3 B-8 D-13
Q603 Q604 Q605 Q606 Q607	B-8 A-8 D-6 C-6 C-7
Q608 Q609 Q801 Q804 Q805	B-6 C-6 J-6 G-13 H-10
	A-10 C-11 C-11 D-11 C-8
	D605 D606 D607 D608 D610
	D-8 C-8 A-9 B-9 A-8
	D611 D612 D613 D614 D615
	D-7 B-7 B-7 B-6 D-8
	D616 D617 D618 D619 D620
	C-6 D-7 C-7 C-7 B-11
	D621 D622 D623 D624 D627
	D-7 C-11 C-11 H-11 H-13
	D630 D632 D633 D801 D802
	I-13 G-10 G-10 F-12 E-12
	D803 D804 D805 D806 D808
	H-11
VARIABLE RESISTOR	
RV501 RV502 RV601	G-6 I-9 B-11

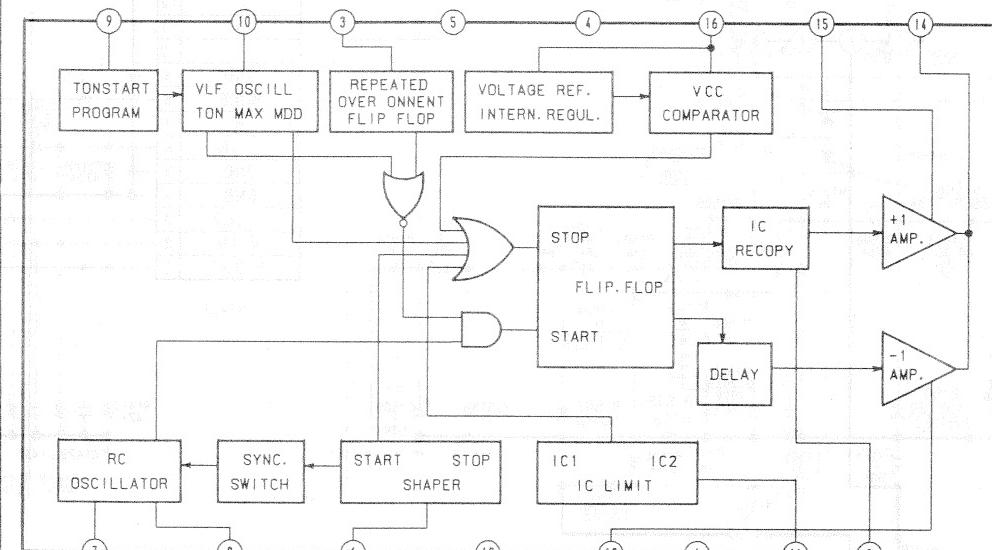
D BOARD IC501 TEA2028A



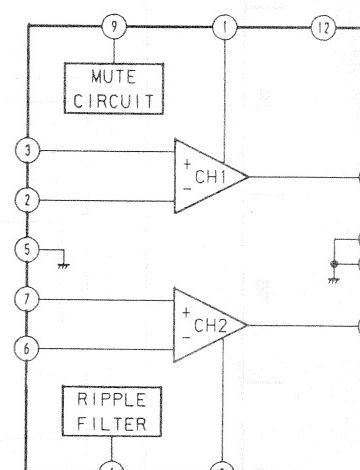
D BOARD IC502 TDA8170



D BOARD IC601 TEA2164



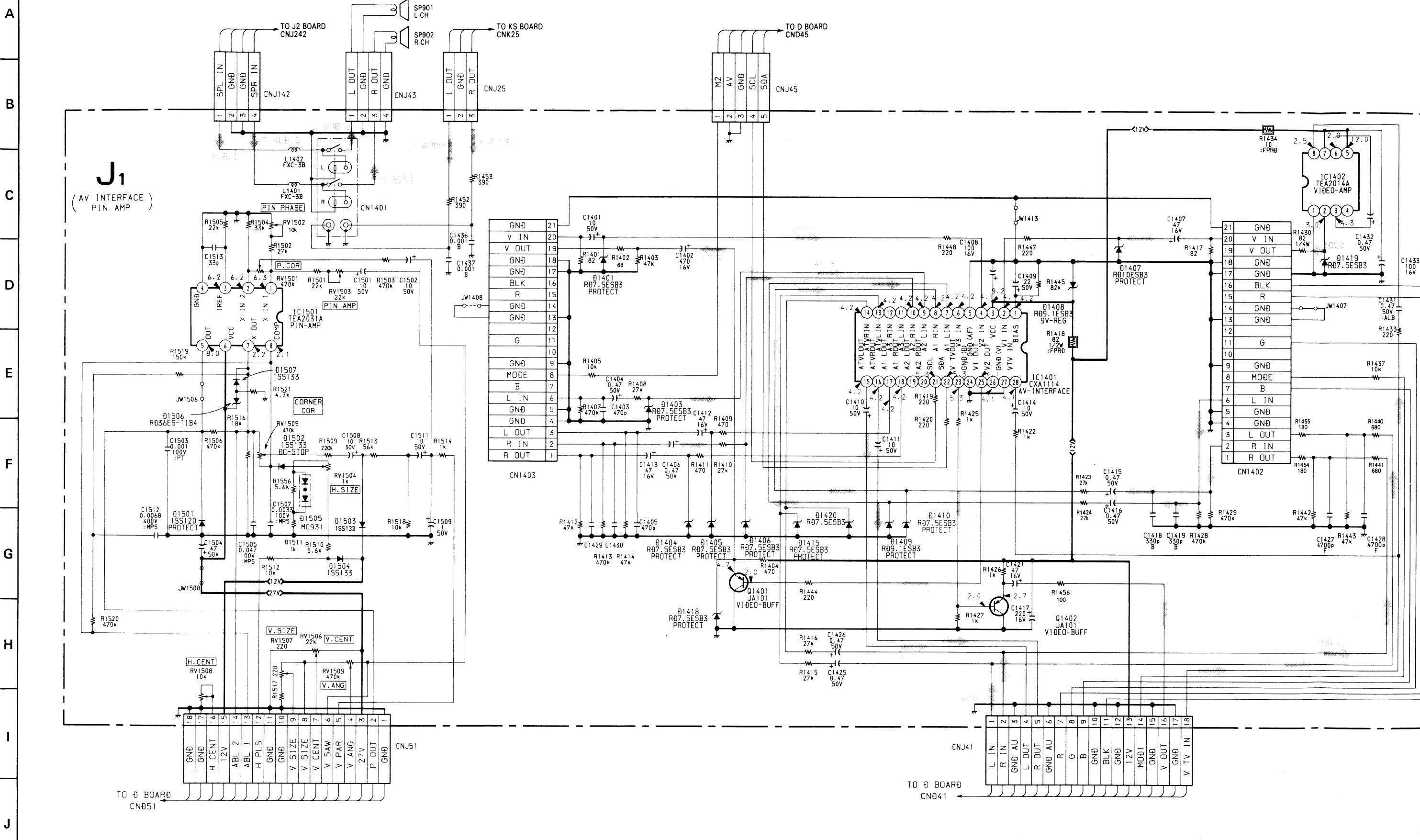
D BOARD IC251 LA4280

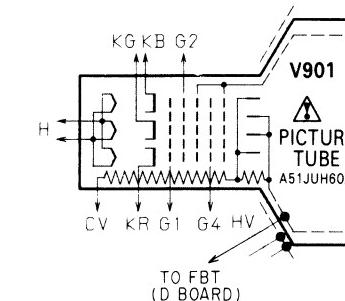
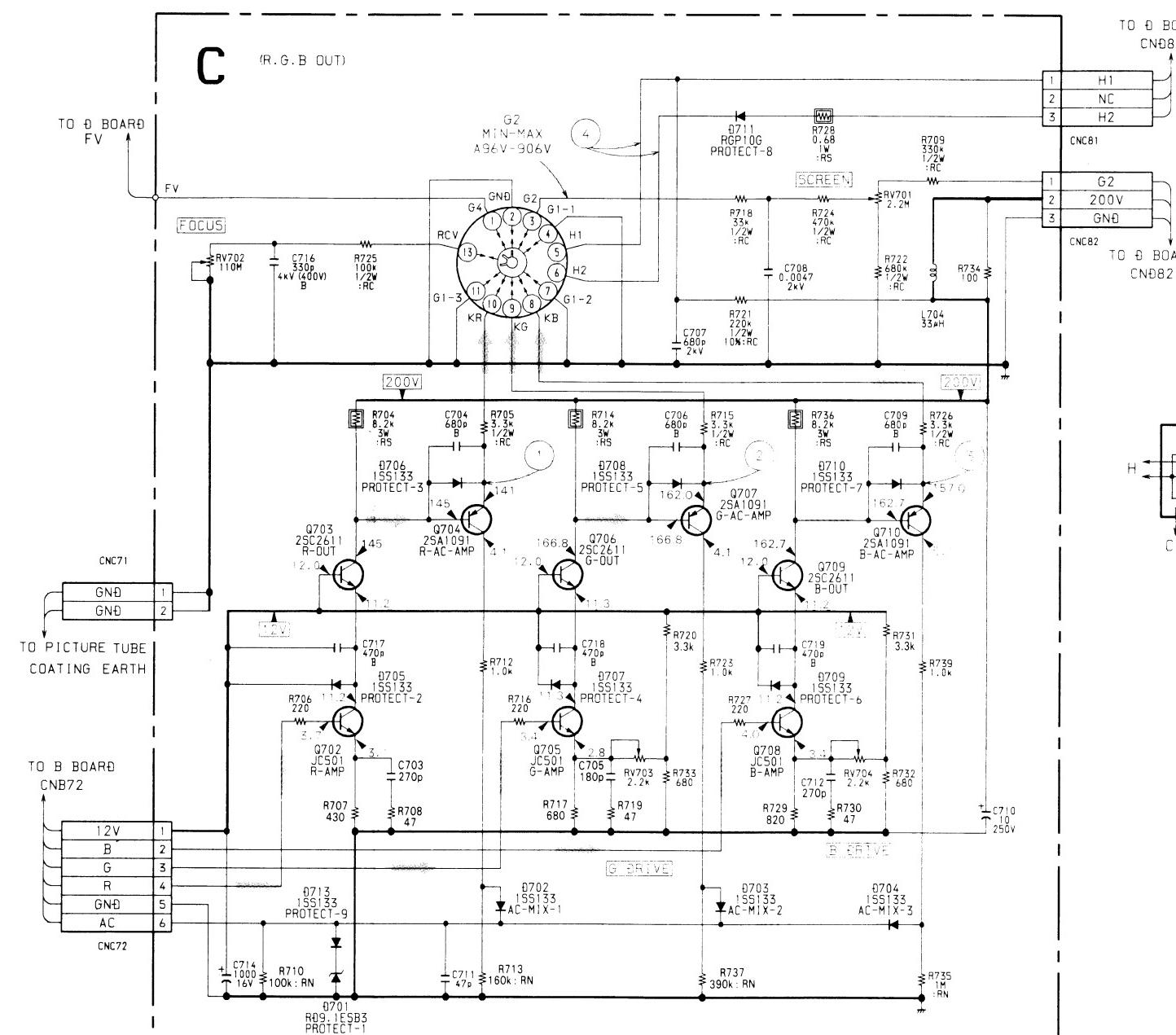
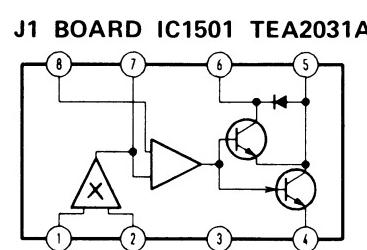
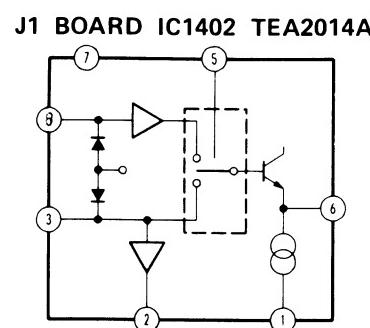
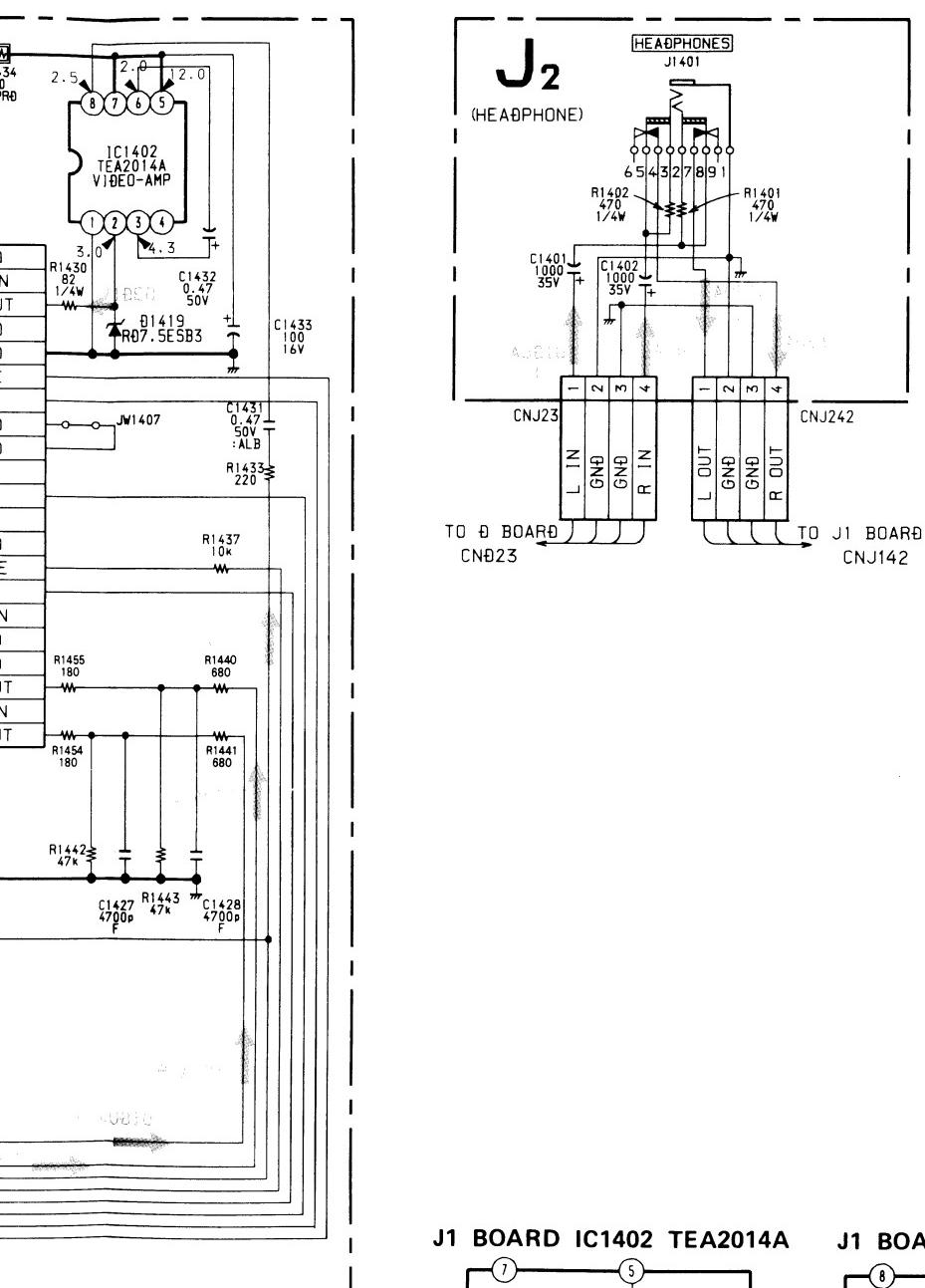


NOTE:

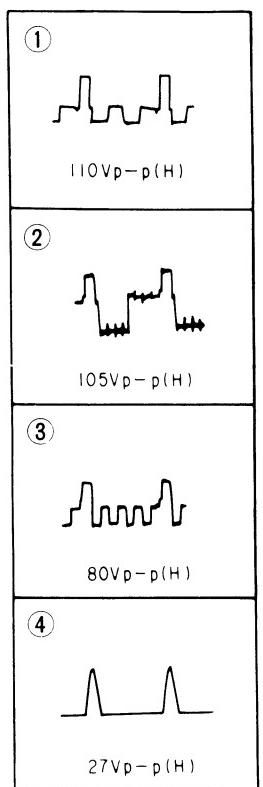
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

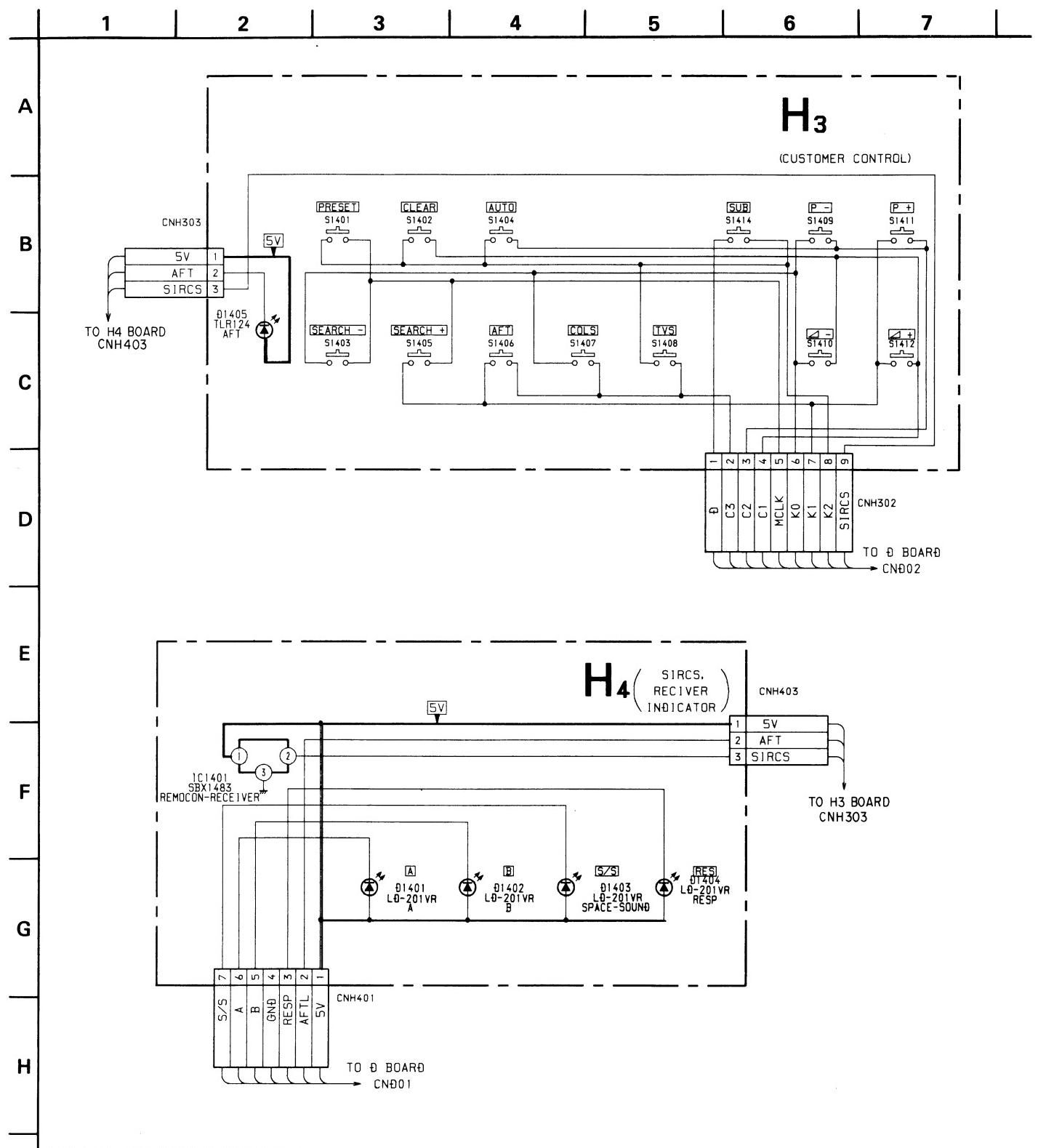
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16



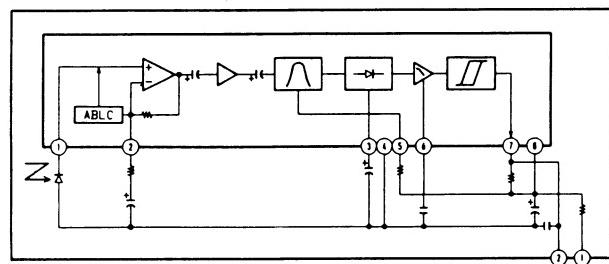


#### • C BOARD WAVEFORM





**H4 BOARD IC1401 SBX-1483**

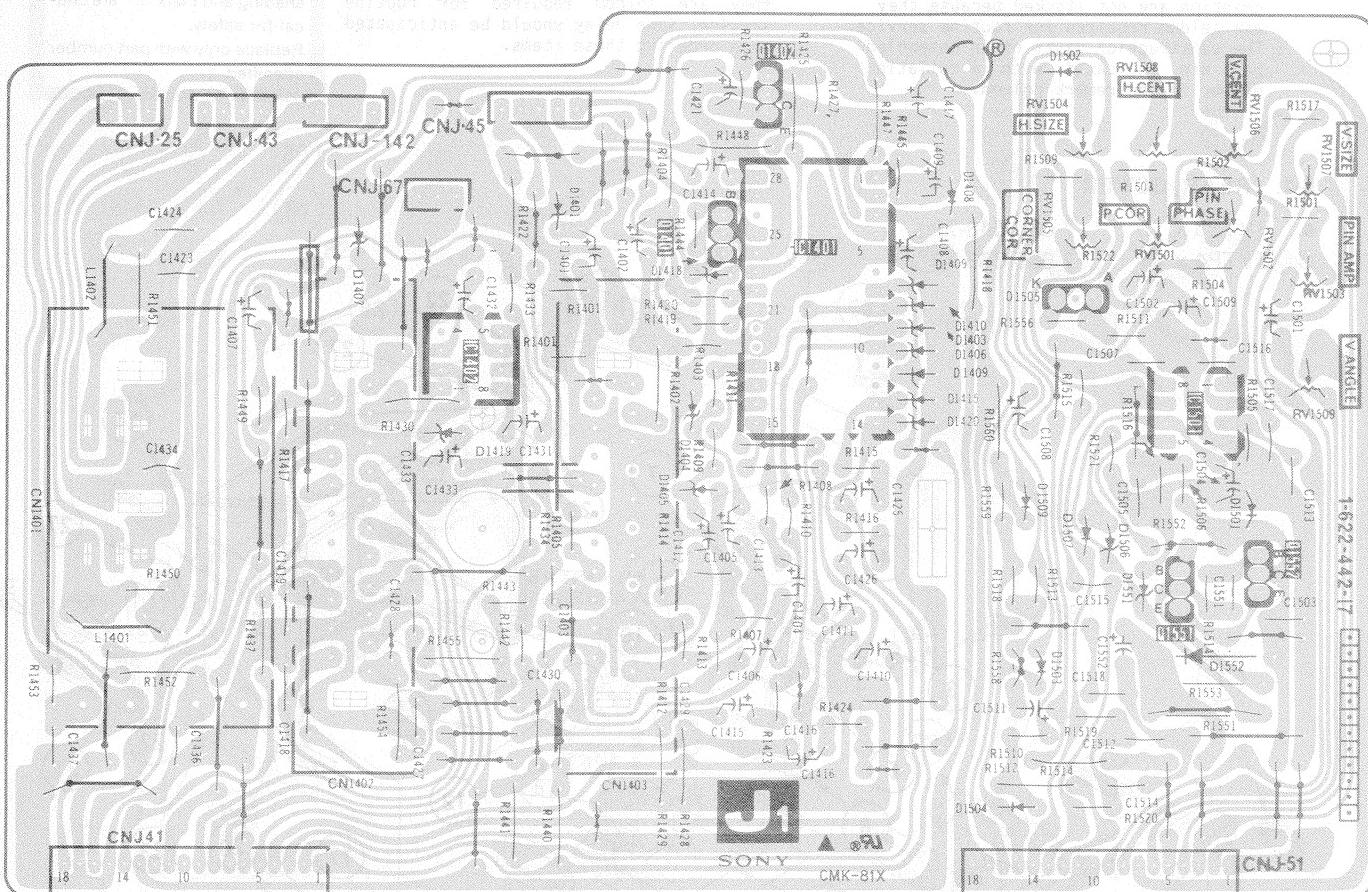


J1 [INTERFACE]

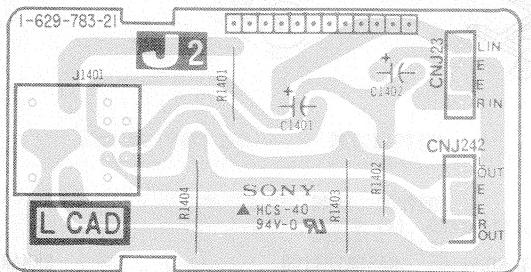
J2 [HEADPHONE JACK]

— J1 Board —

Some brands for more information about the different types of batteries available, see the following section.



– J2 Board –



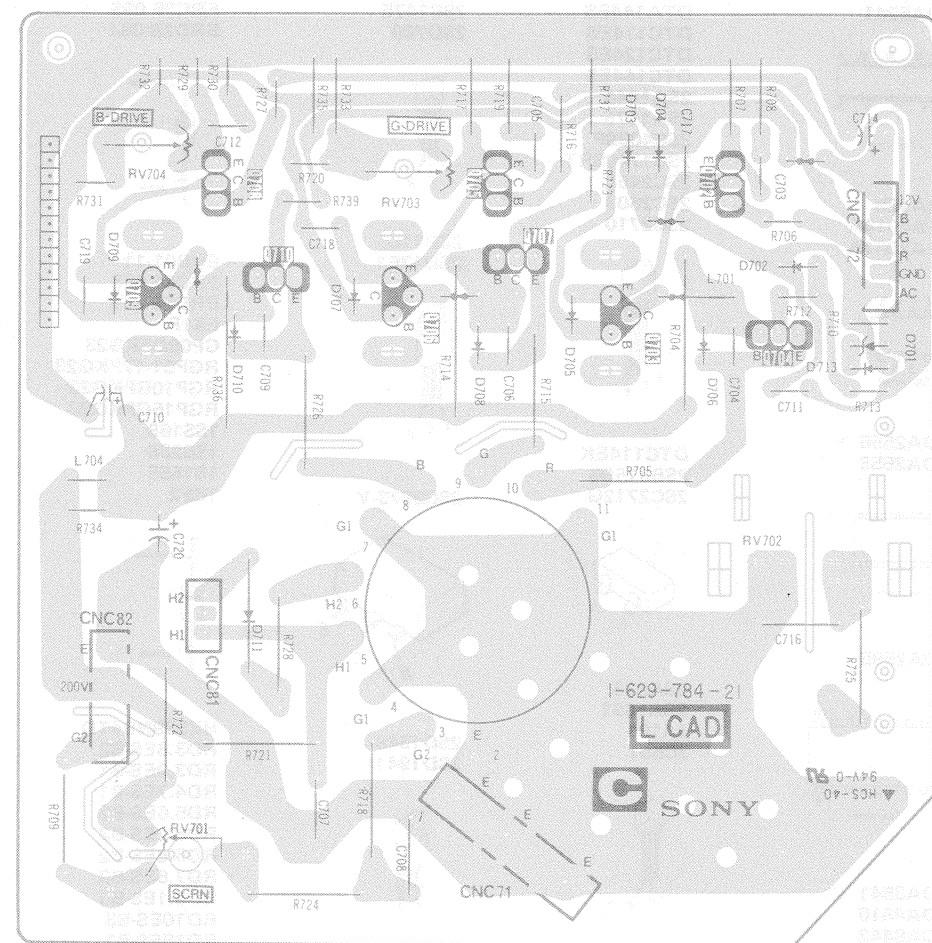
-44-

C [R·G·B OUT]

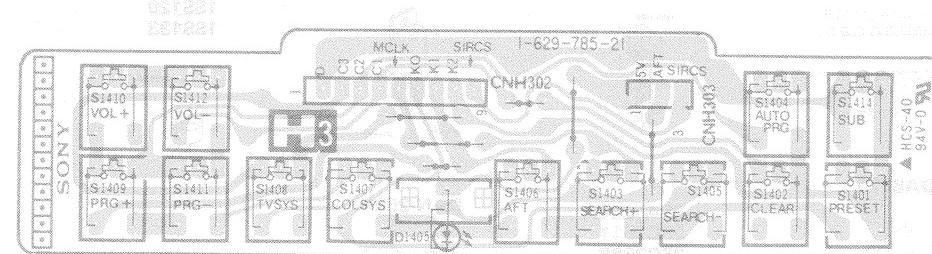
**H3** CUSTOMER CONTROL

**H4** [REMOCON RECEIVER]

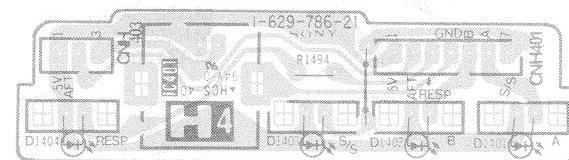
- C Board -



– H3 Board –



– H4 Board –

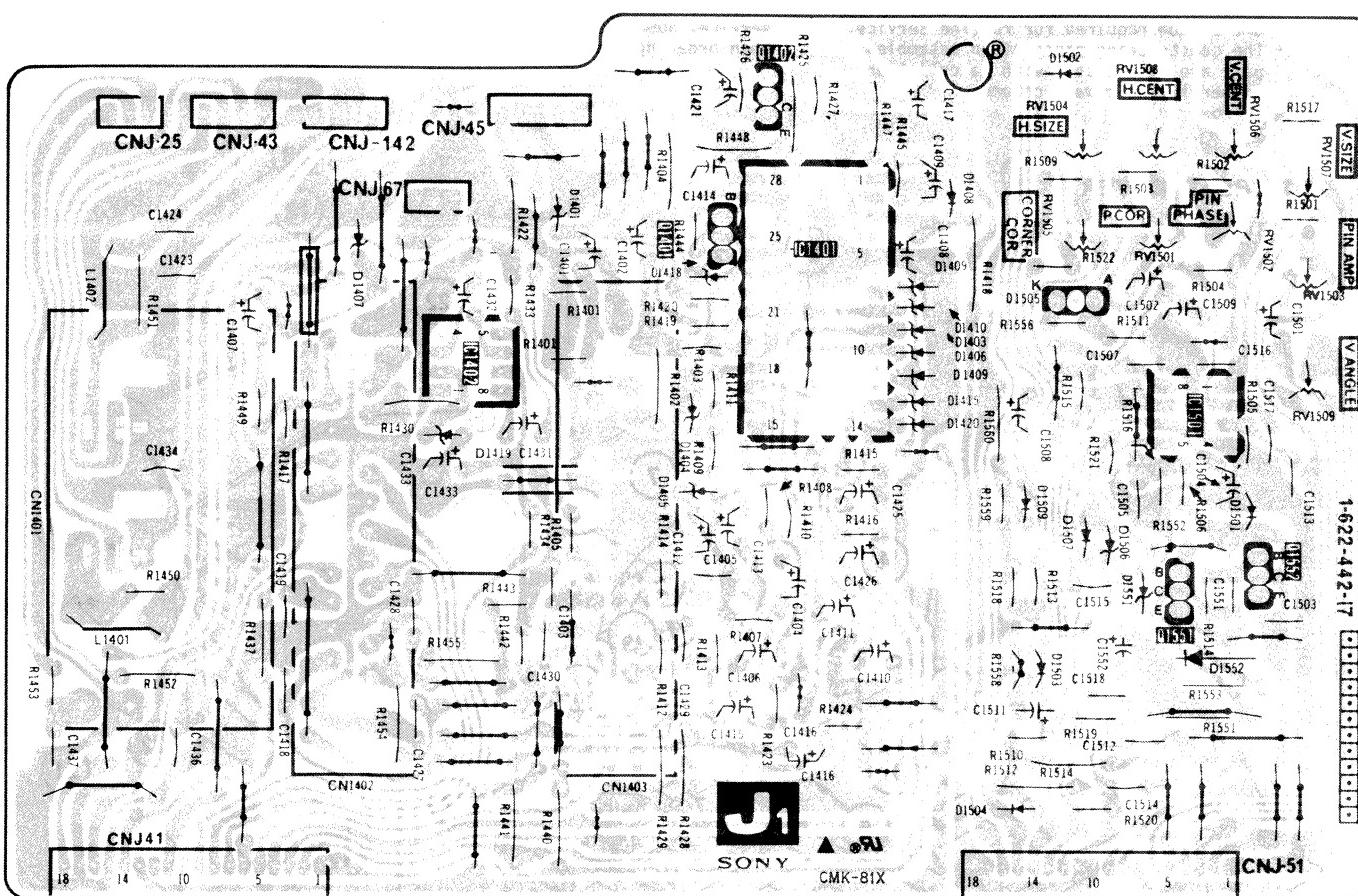


-45-

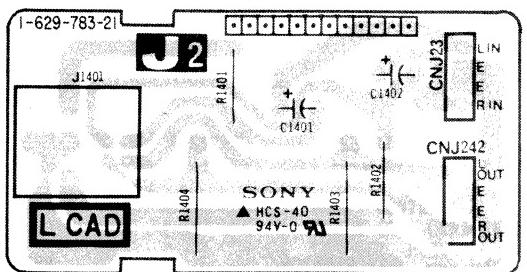
J1 [INTERFACE]

A black rectangular box containing the text "J2" in a large, bold, white sans-serif font. To the right of the box, separated by a thin vertical line, is the text "[HEADPHONE JACK]" in a smaller, white sans-serif font.

– J1 Board –



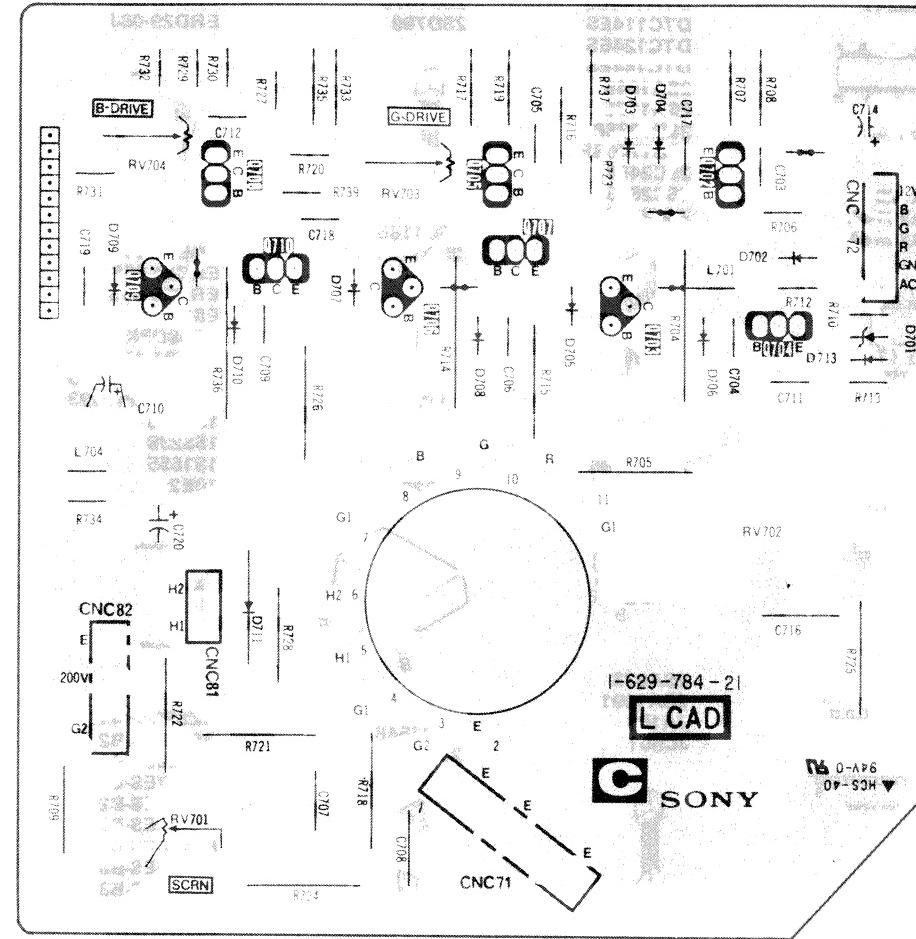
- J2 Board -



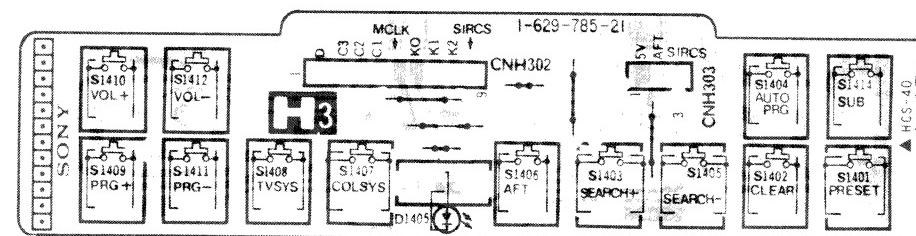
**H3** [CUSTOMER CONTROL]

## **H4** [REMOCON RECEIVER]

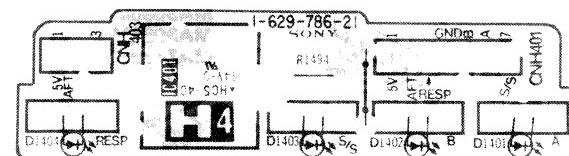
- C Board -



– H3 Board –



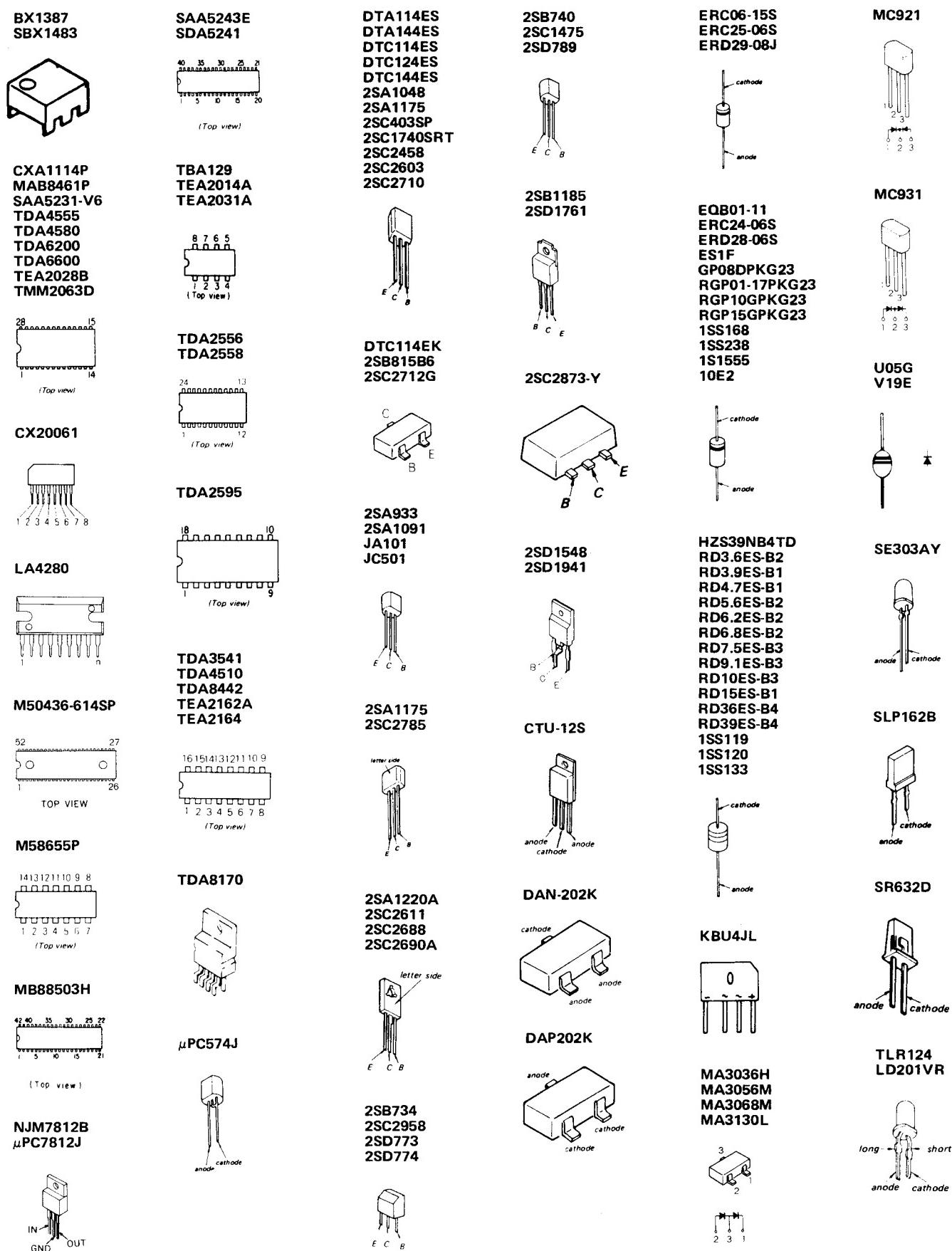
– H4 Board –



## **SECTION 6**

### **EXPLODED VIEWS**

## 5-5. SEMICONDUCTORS



NOTE:

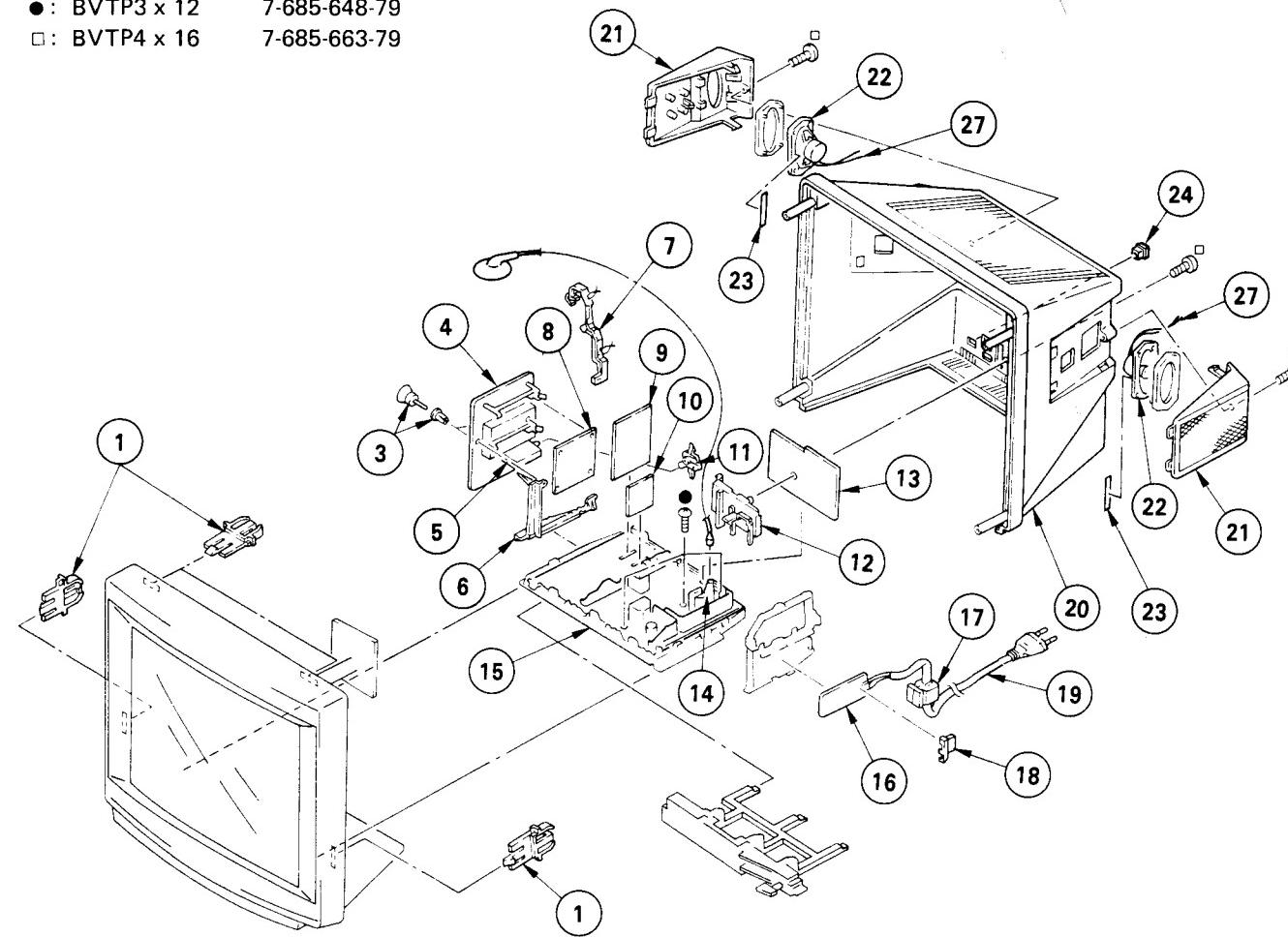
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark  are critical for safety.  
Replace only with part number specified.

## 6-1. REAR COVER

- : BVTP3 x 12 7-685-648-79  
□ : BVTP4 x 16 7-685-663-79



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO. PART
1	4-382-745-01	HOLDER, RC		14	A .1-439-416-11	TRANSFORMER ASSY, FLYBACK		51 4-3-
3	4-386-618-01	RIVET, T TYPE		15	*A-1345-721-A	D BOARD, COMPLETE		52 4-3-
4	*A-1296-476-A	A BOARD, COMPLETE		16	*1-629-719-21	F1 BOARD		53 4-3-
5	A .1-465-053-11	TUNER, ET (UV-615S)		17	A .4-022-115-01	HOLDER, AC CODE		54 4-3-X-4-
6	*4-386-629-12	BRACKET, A		18	*4-386-620-01	COVER, POWER		55 4-3-
7	*4-386-628-11	SUPPORTER, PC BOARD		19	A .1-559-346-12	CORD, POWER (WITH CONNECTOR)		56 4-3-
8	*A-1347-030-A	V BOARD, COMPLETE		20	4-387-808-11	COVER, REAR		57 *4-3-
9	*A-1135-498-A	B BOARD, COMPLETE		21	X-4385-930-3	BOARD ASSY, BAFFLE		58 A .8-7-
10	*1-629-781-21	KS BOARD		22	1-503-642-41	SPEAKER		59 4-3-
11	*4-386-617-01	HOLDER, TERMINAL		23	4-387-886-01	SPACER, BAFFLE BOARD		60 1-4-
12	*4-386-624-11	BRACKET, J		24	4-389-292-01	BUSHING, CORD		61 3-7-
13	*A-1371-373-A	J1 BOARD, COMPLETE		27	1-574-565-11	CORD (WITH PLUG)		62 A .1-4-

The component shading angle for safety. Replace only as specified.

## SECTION 6 EXPLODED VIEWS

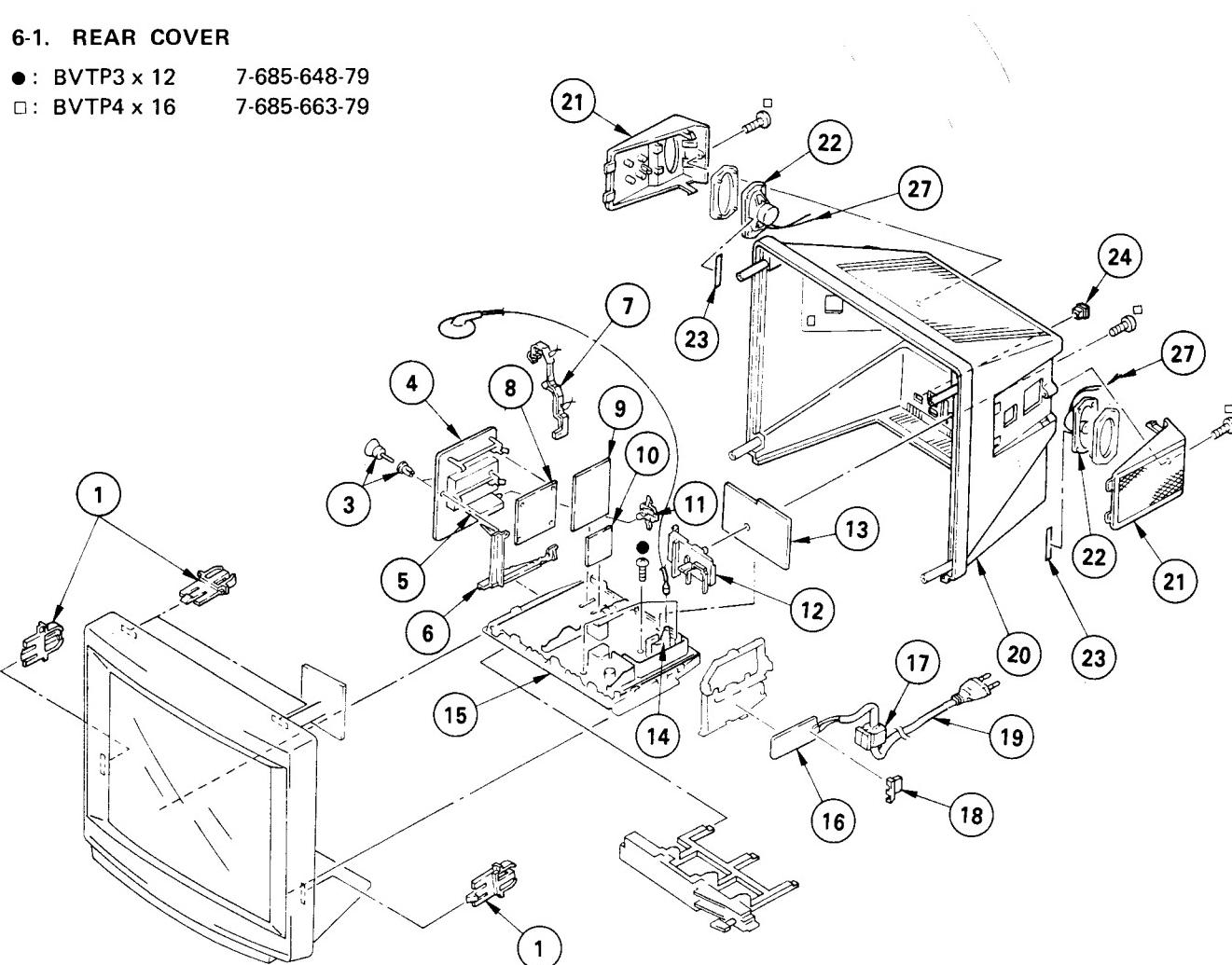
**NOTE:**  
 • Items with no part number and no description are not stocked because they are seldom required for routine service.  
 • The construction parts of an assembled part are indicated with a callout number in the remark column.

• Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

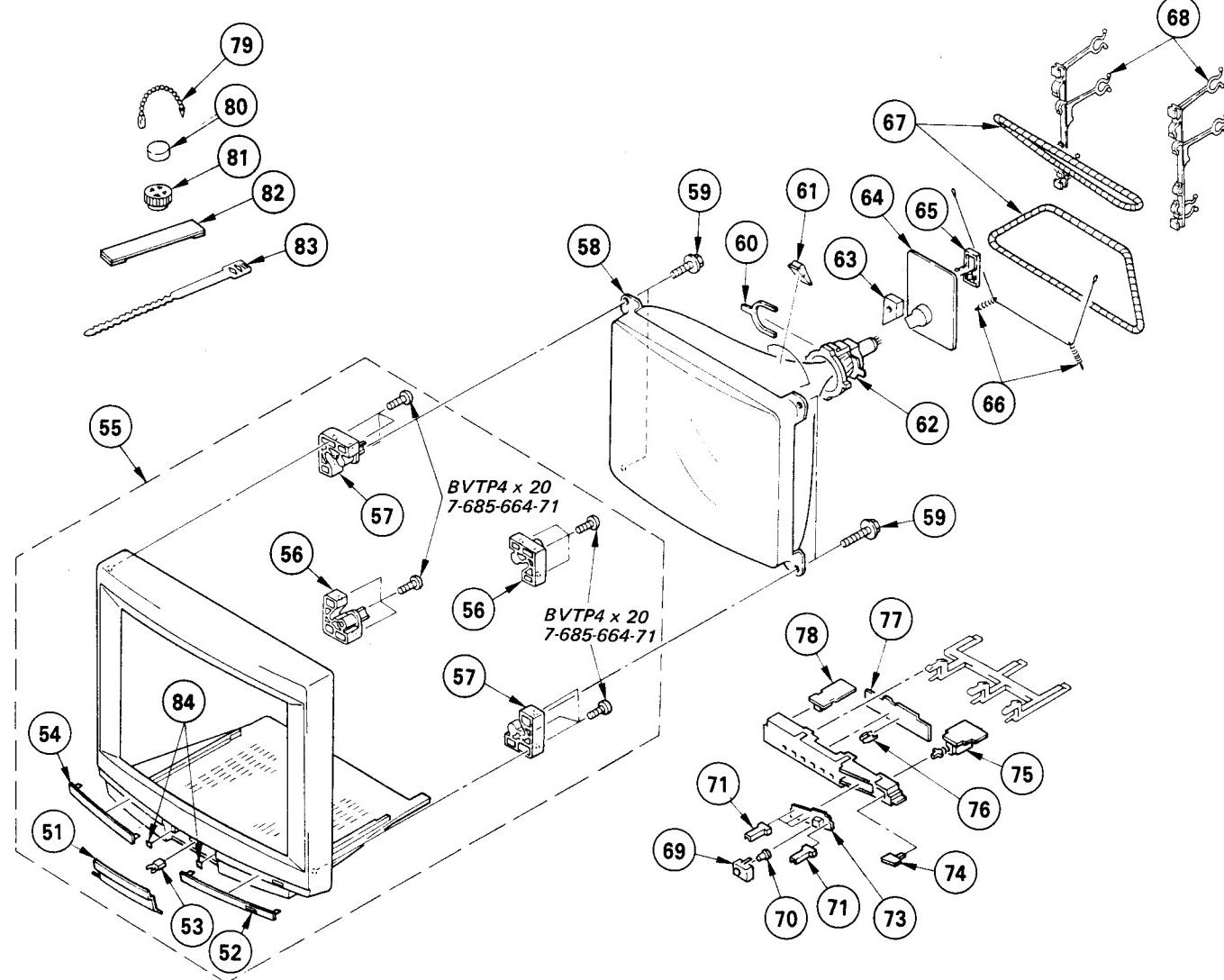
The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

### 6-1. REAR COVER

- : BVTP3 x 12 7-685-648-79
- : BVTP4 x 16 7-685-663-79



### 6-2. PICTURE TUBE



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	4-382-745-01	HOLDER, RC		14 ▲ .1-439-416-11	TRANSFORMER ASSY, FLYBACK		
3	4-386-618-01	RIVET, T TYPE		15 *A-1345-721-A	D BOARD, COMPLETE		
4	*A-1296-476-A	A BOARD, COMPLETE		16 *1-629-719-21	F1 BOARD		
5 ▲ .1-465-053-11	TUNER, ET (UV-615S)			17 ▲ .4-022-115-01	HOLDER, AC CODE		
6	*4-386-629-12	BRACKET, A		18 *4-386-620-01	COVER, POWER		
7	*4-386-628-11	SUPPORTER, PC BOARD		19 ▲ .1-559-346-12	CORD, POWER (WITH CONNECTOR)		
8	*A-1347-030-A	V BOARD, COMPLETE		20 4-387-808-11	COVER, REAR		
9	*A-1135-498-A	B BOARD, COMPLETE		21 X-4385-930-3	BOARD ASSY, BAFFLE		
10	*1-629-781-21	KS BOARD		22 1-503-642-41	SPEAKER		
11	*4-386-617-01	HOLDER, TERMINAL		23 4-387-886-01	SPACER, BAFFLE BOARD		
12	*4-386-624-11	BRACKET, J		24 4-389-292-01	BUSHING, CORD		
13	*A-1371-373-A	J1 BOARD, COMPLETE		27 1-574-565-11	CORD (WITH PLUG)		

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	4-389-279-01	DOOR, CONTROL		68	*4-386-622-01	BAND, DGC	
52	4-389-280-01	PLATE (A), ORNAMENTAL		69	*4-388-955-01	BRACKET (B), LIGHT GUIDE	
53	4-386-710-01	CATCHER, PUSH		70	*4-374-987-01	GUIDE, LIGHT	
54	4-389-281-01	PLATE (B), ORNAMENTAL		71	*4-387-825-01	HOLDER, LED	
55	X-4389-210-1	BEZNET ASSY	51-54, 56, 57	73	*1-629-786-21	H4 BOARD	
56	4-387-805-03	BRACKET (A), PICTURE TUBE		74	4-389-278-01	BUTTON, POWER	
57	*4-387-806-03	BRACKET (B), PICTURE TUBE		75	*1-629-720-21	F2 BOARD	
58 ▲ .8-738-753-05	PICTURE TUBE (A51JUH60X)			76	*4-384-208-01	HOLDER, LED	
59	4-382-733-01	SCREW (S), PT		77	*1-629-785-21	H3 BOARD	
60	1-452-277-00	MAGNET, BMC		78	*1-629-783-21	J2 BOARD	
61	3-703-961-01	SPACER, DY		79	4-308-870-00	CLIP, LEAD WIRE	
62 ▲ .1-451-295-31	DEFLECTION YOKE (SY-153E)			80	1-452-032-00	MAGNET, DISK; 10MM φ	
63	*4-379-167-01	COVER (MAIN), CV		81	1-452-094-00	MAGNET, ROTATABLE DISK; 150MM φ	
64	*A-1330-850-A	C BOARD, COMPLETE		82	X-4309-608-0	PERMALOY ASSY, CONVERGENCE	
65	*4-379-160-01	COVER (REAR LID), CV		83	3-701-007-00	BAND, BINDING	
66	4-369-318-00	SPRING, TENSION		84	4-314-871-00	CUSHION	
67 ▲ .1-426-383-11	COIL, DEMAGNETIZATION						

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

## **SECTION 7**

### **ELECTRICAL PARTS LIST**

**NOTE:**

The components identified by shading and mark A are critical for safety.

Replace only with part number  
specified.

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
  - All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

When indicating parts by reference number, please include the board name.

) In this parts list, the mounting diagram for a different product. Therefore, an excess of parts is listed.

## RESISTORS

- All resistors are in ohms
  - F : nonflammable

REF. NO.	PART NO.	DESCRIPTION			REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK
*A-1135-498-A	B BOARD, COMPLETE					C357	1-102-965-00	CERAMIC	39PF	5%	50V
	*****					C358	1-124-963-11	ELECT	33MF	20%	16V
						C359	1-102-963-00	CERAMIC	33PF	5%	50V
						C360	1-101-004-00	CERAMIC	0.01MF		50V
		<CAPACITOR>				C361	1-101-004-00	CERAMIC	0.01MF		50V
C301	1-106-228-00	MYLAR	0.22MF	10%	100V	C364	1-101-361-00	CERAMIC	150PF	5%	50V
C302	1-106-228-00	MYLAR	0.22MF	10%	100V	C365	1-124-477-11	ELECT	47MF	20%	16V
C303	1-126-101-11	ELECT	100MF	20%	16V	C366	1-124-477-11	ELECT	47MF	20%	16V
C304	1-106-228-00	MYLAR	0.22MF	10%	100V	C367	1-101-004-00	CERAMIC	0.01MF		50V
C305	1-124-119-00	ELECT	330MF	20%	16V	C368	1-101-880-00	CERAMIC	47PF	5%	50V
C306	1-124-902-00	ELECT	0.47MF	20%	50V	C381	1-124-902-00	ELECT	0.47MF	20%	50V
C307	1-124-902-00	ELECT	0.47MF	20%	50V	C382	1-124-927-11	ELECT	4.7MF	20%	50V
C308	1-124-902-00	ELECT	0.47MF	20%	50V	C384	1-124-477-11	ELECT	47MF	20%	16V
C309	1-124-902-00	ELECT	0.47MF	20%	50V	C385	1-124-927-11	ELECT	4.7MF	20%	50V
C310	1-106-220-00	MYLAR	0.1MF	10%	100V	C387	1-124-902-00	ELECT	0.47MF	20%	50V
C311	1-106-220-00	MYLAR	0.1MF	10%	100V	C1311	1-101-884-00	CERAMIC	56PF	5%	50V
C312	1-124-902-00	ELECT	0.47MF	20%	50V						
C313	1-124-902-00	ELECT	0.47MF	20%	50V						
C314	1-124-902-00	ELECT	0.47MF	20%	50V						
C315	1-124-499-11	ELECT	1MF	20%	50V						
		<CONNECTOR>									
C319	1-124-477-11	ELECT	47MF	20%	16V	CNB31	*1-562-370-21	CONNECTOR, BOARD TO BOARD	18P		
C321	1-102-980-00	CERAMIC	270PF	5%	50V	CNB72	*1-564-895-11	PLUG, CONNECTOR	6P		
C322	1-101-888-00	CERAMIC	68PF	5%	50V	CNB93	*1-560-278-41	PLUG, CONNECTOR	6P		
C325	1-124-477-11	ELECT	47MF	20%	16V						
C326	1-101-004-00	CERAMIC	0.01MF		50V						
		<TRIMMER>									
C327	1-101-004-00	CERAMIC	0.01MF		50V	CT331	1-141-181-11	CAP, TRIMMER			
C330	1-101-004-00	CERAMIC	0.01MF		50V	CT332	1-141-181-11	CAP, TRIMMER			
C331	1-124-963-11	ELECT	33MF	20%	16V						
C332	1-124-119-00	ELECT	330MF	20%	16V						
C333	1-101-005-00	CERAMIC	0.022MF		50V						
		<DIODE>									
C334	1-101-884-00	CERAMIC	56PF	5%	50V	D301	8-719-911-19	DIODE	ISS119		
C335	1-101-006-00	CERAMIC	0.047MF		50V	D302	8-719-911-19	DIODE	ISS119		
C336	1-106-367-00	MYLAR	0.01MF	10%	400V	D303	8-719-911-19	DIODE	ISS119		
C337	1-101-004-00	CERAMIC	0.01MF		50V	D304	8-719-911-19	DIODE	ISS119		
C338	1-101-888-00	CERAMIC	68PF	5%	50V	D305	8-719-911-19	DIODE	ISS119		
		<DELAY LINE>									
C339	1-102-816-00	CERAMIC	120PF	5%	50V	D307	8-719-110-23	DIODE	RD11ES-B3		
C340	1-102-953-00	CERAMIC	18PF	5%	50V	D309	8-719-911-19	DIODE	ISS119		
C341	1-102-978-00	CERAMIC	220PF	5%	50V	D331	8-719-911-19	DIODE	ISS119		
C342	1-102-953-00	CERAMIC	18PF	5%	50V	D333	8-719-911-19	DIODE	ISS119		
C343	1-102-816-00	CERAMIC	120PF	5%	50V	D341	8-719-911-19	DIODE	ISS119		
		<DELAY LINE>									
C344	1-101-888-00	CERAMIC	68PF	5%	50V	DL331	1-415-122-00	DELAY LINE			
C345	1-102-978-00	CERAMIC	220PF	5%	50V	DL332	1-236-062-11	MODULE, Y DELAY LINE			
C346	1-102-074-00	CERAMIC	0.001MF	10%	50V						
C347	1-124-499-11	ELECT	1MF	20%	50V						
C348	1-124-499-11	ELECT	1MF	20%	50V						
		<IC>									
C349	1-136-173-00	FILM	0.47MF	5%	50V	IC301	8-759-979-85	IC	TDA4580-V4		
C350	1-106-383-00	MYLAR	0.047MF	10%	100V	IC302	8-759-980-60	IC	TDA8442-N3		
C351	1-106-375-12	MYLAR	0.022MF	10%	250V	IC331	8-759-947-20	IC	TDA4555-V8		
C352	1-106-375-12	MYLAR	0.022MF	10%	250V						
C354	1-102-074-00	CERAMIC	0.001MF	10%	50V						
C355	1-102-816-00	CERAMIC	120PF	5%	50V						

**B**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<COIL>							
L301	1-410-868-21	INDUCTOR	4.7UH	R328	1-249-397-11	CARBON	22 5% 1/4W
L302	1-410-868-21	INDUCTOR	4.7UH	R329	1-249-397-11	CARBON	22 5% 1/4W
L303	1-408-408-00	INDUCTOR	8.2UH	R330	1-249-397-11	CARBON	22 5% 1/4W
L304	1-408-409-00	INDUCTOR	10UH	R331	1-249-418-11	CARBON	1.2K 5% 1/4W
L331	1-408-408-00	INDUCTOR	8.2UH	R332	1-249-401-11	CARBON	47 5% 1/4W
L332	1-404-539-11	COIL		R333	1-249-412-11	CARBON	390 5% 1/4W
L333	1-404-554-11	COIL		R334	1-249-408-11	CARBON	180 5% 1/4W
L334	1-404-554-11	COIL		R335	1-249-415-11	CARBON	680 5% 1/4W
L335	1-404-554-11	COIL		R336	1-249-418-11	CARBON	1.2K 5% 1/4W
L336	1-408-417-00	INDUCTOR	47UH	R337	1-247-848-11	CARBON	5.1K 5% 1/4W
L338	1-408-416-00	INDUCTOR	39UH	R338	1-249-429-11	CARBON	10K 5% 1/4W
L339	1-410-868-21	INDUCTOR	4.7UH	R339	1-249-409-11	CARBON	220 5% 1/4W
				R340	1-249-437-11	CARBON	47K 5% 1/4W
				R341	1-249-410-11	CARBON	270 5% 1/4W
				R342	1-249-429-11	CARBON	10K 5% 1/4W
				R343	1-249-429-11	CARBON	10K 5% 1/4W
				R344	1-249-437-11	CARBON	47K 5% 1/4W
				R345	1-249-419-11	CARBON	1.5K 5% 1/4W
				R346	1-249-429-11	CARBON	10K 5% 1/4W
<TRANSISTOR>							
Q302	8-729-119-78	TRANSISTOR	2SC2785-HFE	R348	1-249-437-11	CARBON	47K 5% 1/4W
Q303	8-729-119-78	TRANSISTOR	2SC2785-HFE	R349	1-249-415-11	CARBON	680 5% 1/4W
Q305	8-729-900-36	TRANSISTOR	DTC124ES	R350	1-249-415-11	CARBON	680 5% 1/4W
Q306	8-729-119-78	TRANSISTOR	2SC2785-HFE	R351	1-249-409-11	CARBON	220 5% 1/4W
Q311	8-729-119-78	TRANSISTOR	2SC2785-HFE	R352	1-247-891-00	CARBON	330K 5% 1/4W
Q312	8-729-119-78	TRANSISTOR	2SC2785-HFE	R353	1-247-891-00	CARBON	330K 5% 1/4W
Q313	8-729-119-78	TRANSISTOR	2SC2785-HFE	R354	1-249-409-11	CARBON	220 5% 1/4W
Q316	8-729-119-78	TRANSISTOR	2SC2785-HFE	R355	1-249-423-11	CARBON	3.3K 5% 1/4W
Q331	8-729-119-78	TRANSISTOR	2SC2785-HFE	R356	1-249-427-11	CARBON	6.8K 5% 1/4W
Q332	8-729-900-36	TRANSISTOR	DTC124ES	R358	1-249-409-11	CARBON	220 5% 1/4W
Q333	8-729-900-36	TRANSISTOR	DTC124ES	R359	1-249-437-11	CARBON	47K 5% 1/4W
Q334	8-729-119-78	TRANSISTOR	2SC2785-HFE	R360	1-249-437-11	CARBON	47K 5% 1/4W
Q335	8-729-119-78	TRANSISTOR	2SC2785-HFE	R361	1-249-418-11	CARBON	1.2K 5% 1/4W
Q336	8-729-119-78	TRANSISTOR	2SC2785-HFE	R363	1-249-410-11	CARBON	270 5% 1/4W
Q381	8-729-900-36	TRANSISTOR	DTC124ES	R364	1-249-417-11	CARBON	1K 5% 1/4W
Q382	8-729-119-78	TRANSISTOR	2SC2785-HFE	R365	1-249-417-11	CARBON	1K 5% 1/4W
Q1306	8-729-173-38	TRANSISTOR	2SA733-K	R367	1-249-409-11	CARBON	220 5% 1/4W
				R368	1-249-417-11	CARBON	1K 5% 1/4W
				R369	1-249-417-11	CARBON	1K 5% 1/4W
				R370	1-249-418-11	CARBON	1.2K 5% 1/4W
<RESISTOR>							
R301	1-249-409-11	CARBON	220 5% 1/4W	R371	1-249-417-11	CARBON	1K 5% 1/4W
R302	1-249-409-11	CARBON	220 5% 1/4W	R376	1-249-429-11	CARBON	10K 5% 1/4W
R303	1-249-409-11	CARBON	220 5% 1/4W	R378	1-249-441-11	CARBON	100K 5% 1/4W
R304	1-249-409-11	CARBON	220 5% 1/4W	R379	1-249-441-11	CARBON	100K 5% 1/4W
R305	1-249-421-11	CARBON	2.2K 5% 1/4W	R380	1-249-426-11	CARBON	5.6K 5% 1/4W
R307	1-249-441-11	CARBON	100K 5% 1/4W	R381	1-249-439-11	CARBON	68K 5% 1/4W
R308	1-249-414-11	CARBON	560 5% 1/4W	R382	1-247-885-00	CARBON	180K 5% 1/4W
R309	1-249-405-11	CARBON	100 5% 1/4W	R383	1-247-893-11	CARBON	390K 5% 1/4W
R310	1-249-405-11	CARBON	100 5% 1/4W	R385	1-249-435-11	CARBON	33K 5% 1/4W
R311	1-249-405-11	CARBON	100 5% 1/4W	R389	1-247-883-00	CARBON	150K 5% 1/4W
R312	1-249-409-11	CARBON	220 5% 1/4W	R390	1-249-411-11	CARBON	330 5% 1/4W
R313	1-249-433-11	CARBON	22K 5% 1/4W	R391	1-249-404-00	CARBON	82 5% 1/4W
R314	1-249-413-11	CARBON	470 5% 1/4W	R392	1-249-402-11	CARBON	56 5% 1/4W
R315	1-249-407-11	CARBON	150 5% 1/4W	R393	1-249-402-11	CARBON	56 5% 1/4W
R316	1-249-407-11	CARBON	150 5% 1/4W	R394	1-249-402-11	CARBON	56 5% 1/4W
R317	1-249-407-11	CARBON	150 5% 1/4W				
R318	1-249-429-11	CARBON	10K 5% 1/4W				
R319	1-249-409-11	CARBON	220 5% 1/4W				
R320	1-249-417-11	CARBON	1K 5% 1/4W				
R321	1-249-421-11	CARBON	2.2K 5% 1/4W				
R322	1-249-420-11	CARBON	1.8K 5% 1/4W				
R323	1-249-421-11	CARBON	2.2K 5% 1/4W				
R324	1-249-426-11	CARBON	5.6K 5% 1/4W				
R325	1-249-429-11	CARBON	10K 5% 1/4W				
R326	1-249-419-11	CARBON	1.5K 5% 1/4W				
R327	1-249-427-11	CARBON	6.8K 5% 1/4W				
<VARIABLE RESISTOR>							
				RV331	1-238-009-11	RES, ADJ, CARBON	220
				R1324	1-249-419-11	CARBON	1.5K 5% 1/4W

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

**B**

**F<sub>2</sub>**

**F<sub>1</sub>**

**A**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
<b>&lt;TRANSFORMER&gt;</b>											
T331	1-404-584-11	COIL		<b>&lt;THERMISTOR&gt;</b>							
<b>&lt;CRYSTAL&gt;</b>											
X331	1-567-307-11	OSCILLATOR, CRYSTAL		<b>*A-1296-476-A A BOARD, COMPLETE</b>							
X332	1-567-131-00	OSCILLATOR, CRYSTAL		*****							
*****											
*1-629-720-21	F2 BOARD		*****	<b>A-1-465-053-11 TUNER, ET (UV-615S)</b>							
*****											
<b>&lt;CONNECTOR&gt;</b>											
CNF262*	1-566-664-11	PIN, CONNECTOR 4P		C101	1-126-233-11	ELECT	22MF	20%	50V		
<b>&lt;SWITCH&gt;</b>											
S1701A	1-571-410-11	SWITCH, PUSH (AC POWER) (1 KEY)		C102	1-126-103-11	ELECT	470MF	20%	16V		
*****											
*1-629-719-21	F1 BOARD		*****	C103	1-106-220-00	MYLAR	0.1MF	10%	100V		
*****											
<b>&lt;CAPACITOR&gt;</b>											
C1601A	1-136-518-11	FILM	0.33MF	C104	1-106-216-00	MYLAR	0.068MF	10%	100V		
C1602A	1-136-519-11	FILM	0.47MF	C105	1-106-216-00	MYLAR	0.068MF	10%	100V		
C1603A	1-162-578-51	CERAMIC	0.0047MF	C106	1-101-004-00	CERAMIC	0.01MF	5%	50V		
C1604A	1-162-578-51	CERAMIC	0.0047MF	C107	1-102-963-00	CERAMIC	33PF	20%	16V		
C1605A	1-162-578-51	CERAMIC	0.0047MF	C108	1-124-963-11	ELECT	33MF	50V			
C1606A	1-162-578-51	CERAMIC	0.0047MF	C109	1-101-003-00	CERAMIC	0.0047MF	20%	16V		
C1607A	1-161-964-61	CERAMIC	0.0047MF	C110	1-124-499-11	ELECT	1MF	20%	50V		
<b>&lt;CONNECTOR&gt;</b>											
CNF61	*1-566-664-11	PIN, CONNECTOR 4P		C111	1-101-003-00	CERAMIC	0.0047MF	50V			
CNF64	*1-506-348-XX	PIN, CONNECTOR 3P		C112	1-101-003-00	CERAMIC	0.0047MF	50V			
CNF65	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P		C113	1-101-003-00	CERAMIC	0.0047MF	50V			
CNF66	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		C114	1-124-963-11	ELECT	33MF	20%	16V		
CNF67	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)		C118	1-101-880-00	CERAMIC	47PF	5%	50V		
CNF162*	1-506-348-XX	PIN, CONNECTOR 4P		C119	1-126-101-11	ELECT	100MF	20%	16V		
<b>&lt;FUSE&gt;</b>											
F1601A	1-532-350-11	FUSE, TIME-LAG 4A/250V		C120	1-124-925-11	ELECT	2.2MF	20%	50V		
1-533-087-00 HOLDER, FUSE; F1601											
<b>&lt;FILTER&gt;</b>											
LF1601A	1-421-866-12	LFT		C121	1-101-003-00	CERAMIC	0.0047MF	50V			
LF1602A	1-421-776-11	LFT		C122	1-101-003-00	CERAMIC	0.0047MF	50V			
LF1603A	1-421-592-11	TRANSFORMER, FERRITE		C123	1-101-003-00	CERAMIC	0.0047MF	50V			
<b>&lt;RESISTOR&gt;</b>											
R1601A	1-246-513-75	CARBON	47K	C124	1-101-004-00	CERAMIC	0.01MF	10%	100V		
R1602A	1-244-945-91	CARBON	1M	C125	1-136-298-00	FILM	0.0033MF	2%	100V		
R1603A	1-217-328-11	WIREWOUND	2.7	C126	1-102-816-00	CERAMIC	120PF	5%	50V		
R1604A	1-246-513-75	CARBON	47K	C127	1-101-361-00	CERAMIC	150PF	5%	50V		
R1605A	1-218-265-91	METAL GLAZE	8.2M	C128	1-124-925-11	ELECT	2.2MF	20%	50V		
F											
C129											
1-123-875-11											
<b>&lt;RESISTOR&gt;</b>											
R1601A	1-246-513-75	CARBON	47K	C130	1-101-004-00	CERAMIC	0.01MF	50V			
R1602A	1-244-945-91	CARBON	1M	C131	1-101-006-00	CERAMIC	0.047MF	50V			
R1603A	1-217-328-11	WIREWOUND	2.7	C132	1-124-499-11	ELECT	1MF	20%	50V		
R1604A	1-246-513-75	CARBON	47K	C133	1-101-003-00	CERAMIC	0.0047MF	50V			
R1605A	1-218-265-91	METAL GLAZE	8.2M	C134	1-124-499-11	ELECT	1MF	20%	50V		
F											
C135											
1-101-004-00											
C136											
1-101-006-00											
C137											
1-101-880-00											
C138											
1-124-925-11											
C139											
1-123-875-11											
<b>&lt;RESISTOR&gt;</b>											
R1601A	1-246-513-75	CARBON	47K	C140	1-108-614-11	MYLAR	0.001MF	10%	100V		
R1602A	1-244-945-91	CARBON	1M	C141	1-136-298-00	FILM	0.0033MF	2%	100V		
R1603A	1-217-328-11	WIREWOUND	2.7	C142	1-102-816-00	CERAMIC	120PF	5%	50V		
R1604A	1-246-513-75	CARBON	47K	C143	1-101-361-00	CERAMIC	150PF	5%	50V		
R1605A	1-218-265-91	METAL GLAZE	8.2M	C144	1-124-477-11	ELECT	47MF	20%	16V		
F											
C145											
1-124-477-11											
C146											
1-124-477-11											
C147											
1-124-477-11											
C148											
1-123-875-11											
C149											
1-136-153-00											
F											
C150											
1-136-153-00											
C151											
1-126-233-11											
C152											
1-126-233-11											
C153											
1-136-165-00											
C154											
1-136-169-00											

**A**

REF. NO.	PART NO.	DESCRIPTION		REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C155	1-124-963-11	ELECT	33MF	20%	16V	Q101	8-729-900-61	TRANSISTOR DTA114ES
C156	1-136-157-00	FILM	0.022MF	5%	50V	Q102	8-729-900-61	TRANSISTOR DTA114ES
C157	1-136-161-00	FILM	0.047MF	5%	50V	Q103	8-729-900-61	TRANSISTOR DTA114ES
C158	1-124-963-11	ELECT	33MF	20%	16V	Q104	8-729-900-61	TRANSISTOR DTA114ES
C159	1-124-477-11	ELECT	47MF	20%	16V	Q105	8-729-119-78	TRANSISTOR 2SC2785-HFE
C161	1-124-477-11	ELECT	47MF	20%	16V	Q106	8-729-119-78	TRANSISTOR 2SC2785-HFE
C162	1-102-816-00	CERAMIC	120PF	5%	50V	Q107	8-729-173-38	TRANSISTOR 2SA733-K
C163	1-124-927-11	ELECT	4.7MF	20%	50V	Q108	8-729-900-65	TRANSISTOR DTA144ES
C164	1-106-367-00	MYLAR	0.01MF	10%	400V	Q109	8-729-900-89	TRANSISTOR DTC144ES
C165	1-136-287-11	FILM	0.0047MF	5%	50V	Q110	8-729-173-38	TRANSISTOR 2SA733-K
C167	1-124-499-11	ELECT	1MF	20%	50V	Q111	8-729-900-89	TRANSISTOR DTC144ES
C168	1-106-228-00	MYLAR	0.22MF	10%	100V	Q112	8-729-119-78	TRANSISTOR 2SC2785-HFE
C169	1-123-875-11	ELECT	10MF	20%	50V	Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE
C174	1-124-499-11	ELECT	1MF	20%	50V	Q116	8-729-900-65	TRANSISTOR DTA144ES
C177	1-102-119-00	CERAMIC	0.0015MF	10%	50V	Q117	8-729-173-38	TRANSISTOR 2SA733-K
C187	1-101-003-00	CERAMIC	0.0047MF		50V			<RESISTOR>
C188	1-124-963-11	ELECT	33MF	20%	16V	R101	1-249-405-11	CARBON
C189	1-124-963-11	ELECT	33MF	20%	16V	R102	1-249-423-11	CARBON
C190	1-106-220-00	MYLAR	0.1MF	10%	100V	R103	1-249-433-11	CARBON
					R104	1-249-429-11	CARBON	
					R105	1-249-418-11	CARBON	
					R111	1-249-418-11	CARBON	
					R112	1-249-421-11	CARBON	
					R114	1-249-413-11	CARBON	
					R115	1-249-413-11	CARBON	
					R116	1-249-419-11	CARBON	
					R117	1-249-431-11	CARBON	
					R118	1-249-425-11	CARBON	
					R119	1-249-417-11	CARBON	
D105	8-719-109-92	DIODE RD6.2ES-B1			R121	1-249-429-11	CARBON	
D106	8-719-911-19	DIODE ISS119			R122	1-249-436-11	CARBON	
D108	8-719-000-06	DIODE MC921			R123	1-249-417-11	CARBON	
D110	8-719-911-19	DIODE ISS119			R124	1-249-423-11	CARBON	
D111	8-719-109-68	DIODE RD3.6ES-B1			R125	1-249-429-11	CARBON	
					R126	1-249-436-11	CARBON	
					R127	1-249-432-11	CARBON	
					R128	1-249-432-11	CARBON	
					R129	1-249-429-11	CARBON	
					R130	1-249-429-11	CARBON	
					R132	1-249-414-11	CARBON	
					R133	1-249-425-11	CARBON	
					R134	1-249-414-11	CARBON	
					R135	1-249-419-11	CARBON	
L101	1-408-226-00	INDUCTOR	82UH		R136	1-249-414-11	CARBON	
L102	1-410-116-11	INDUCTOR	0.56MMH		R137	1-249-414-11	CARBON	
L103	1-408-406-00	INDUCTOR	5.6UH		R138	1-249-419-11	CARBON	
L104	1-408-411-00	INDUCTOR	15UH		R139	1-249-431-11	CARBON	
L106	1-408-415-00	INDUCTOR	33UH		R140	1-249-441-11	CARBON	
L107	1-408-406-00	INDUCTOR	5.6UH		R141	1-249-425-11	CARBON	
L108	1-408-412-00	INDUCTOR	18UH		R142	1-249-441-11	CARBON	
L109	1-408-412-00	INDUCTOR	18UH		R143	1-249-441-11	CARBON	
L110	1-410-064-11	INDUCTOR	2.7MMH		R144	1-249-422-11	CARBON	
L111	1-408-421-00	INDUCTOR	100UH		R146	1-249-424-11	CARBON	
L113	1-408-399-00	INDUCTOR	1.5UH		R148	1-249-413-11	CARBON	
					R150	1-249-423-11	CARBON	
					R151	1-249-423-11	CARBON	
					R152	1-249-431-11	CARBON	

**A****C**

REF. NO.	PART NO.	DESCRIPTION				REMARK	REF. NO.	PART NO.	DESCRIPTION				REMARK
R153	1-249-416-11	CARBON	820	5%	1/4W		D707	8-719-911-19	DIODE	ISS119			
R154	1-249-441-11	CARBON	100K	5%	1/4W		D708	8-719-911-19	DIODE	ISS119			
R155	1-249-430-11	CARBON	12K	5%	1/4W		D709	8-719-911-19	DIODE	ISS119			
R156	1-247-881-00	CARBON	120K	5%	1/4W		D710	8-719-911-19	DIODE	ISS119			
R163	1-249-424-11	CARBON	3.9K	5%	1/4W		D711	8-719-925-06	DIODE	ERC25-06S			
R165	1-249-423-11	CARBON	3.3K	5%	1/4W		D713	8-719-911-19	DIODE	ISS119			
R166	1-249-437-11	CARBON	47K	5%	1/4W								
R174	1-249-429-11	CARBON	10K	5%	1/4W								
R175	1-249-429-11	CARBON	10K	5%	1/4W								
R188	1-249-419-11	CARBON	1.5K	5%	1/4W								
R189	1-249-419-11	CARBON	1.5K	5%	1/4W		J701	1-526-798-51	SOCKET, PICTURE TUBE				
<VARIABLE RESISTOR>													
RV101	1-237-753-11	RES, ADJ, CARBON	47K				L704	1-410-878-21	INDUCTOR		33UH		
RV102	1-237-751-11	RES, ADJ, CARBON	10K										
RV103	1-237-753-11	RES, ADJ, CARBON	47K										
<TRANSFORMER>													
T101	1-404-493-00	COIL					Q702	8-729-119-78	TRANSISTOR	2SC2785-HFE			
T102	1-404-493-00	COIL					Q703	8-729-326-11	TRANSISTOR	2SC2611			
T103	1-404-493-00	COIL					Q704	8-729-200-17	TRANSISTOR	2SA1091			
*****													
*A-1330-850-A		C BOARD, COMPLETE					Q705	8-729-119-78	TRANSISTOR	2SC2785-HFE			
*****							Q706	8-729-326-11	TRANSISTOR	2SC2611			
*4-379-160-01		COVER (REAR LID), CV					Q707	8-729-200-17	TRANSISTOR	2SA1091			
*4-379-167-01		COVER (MAIN), CV					Q708	8-729-119-78	TRANSISTOR	2SC2785-HFE			
*4-386-664-01		SPRING					Q709	8-729-326-11	TRANSISTOR	2SC2611			
<CAPACITOR>													
C703	1-102-980-00	CERAMIC	270PF	5%	50V		R704	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
C704	1-102-116-00	CERAMIC	680PF	10%	50V		R705	1-202-824-00	SOLID	3.3K	10%	1/2W	
C705	1-102-976-00	CERAMIC	180PF	5%	50V		R706	1-249-409-11	CARBON	220	5%	1/4W	
C706	1-102-116-00	CERAMIC	680PF	10%	50V		R707	1-247-822-11	CARBON	430	5%	1/4W	
C707	1-162-116-00	CERAMIC	680PF	10%	2KV		R708	1-249-401-11	CARBON	47	5%	1/4W	
C708	1-162-114-00	CERAMIC	0.0047MF		2KV		R709	1-202-844-00	SOLID	330K	10%	1/2W	
C709	1-102-116-00	CERAMIC	680PF	10%	50V		R710	1-215-469-00	METAL	100K	1%	1/6W	
C710	1-123-947-00	ELECT	10MF	20%	250V		R712	1-249-417-11	CARBON	1K	5%	1/4W	
C711	1-101-880-00	CERAMIC	47PF	5%	50V		R713	1-215-474-00	METAL	160K	1%	1/6W	
C712	1-102-980-00	CERAMIC	270PF	5%	50V		R714	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
C714	1-124-360-00	ELECT	1000MF	20%	16V		R715	1-202-824-00	SOLID	3.3K	10%	1/2W	
C716	1-162-622-11	CERAMIC	330PF	10%	400V		R716	1-249-409-11	CARBON	220	5%	1/4W	
C717	1-102-114-00	CERAMIC	470PF	10%	50V		R717	1-249-415-11	CARBON	680	5%	1/4W	
C718	1-102-114-00	CERAMIC	470PF	10%	50V		R718	1-202-814-11	SOLID	33K	10%	1/2W	
C719	1-102-114-00	CERAMIC	470PF	10%	50V		R719	1-249-401-11	CARBON	47	5%	1/4W	
<CONNECTOR>													
CNC71	*1-506-371-00	PIN, CONNECTOR 2P					R725	1-202-838-00	SOLID	100K	10%	1/2W	
CNC72	*1-564-883-11	PLUG, CONNECTOR 6P					R726	1-202-824-00	SOLID	3.3K	10%	1/2W	
CNC81	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)					R727	1-249-409-11	CARBON	220	5%	1/4W	
CNC82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P					R728	1-216-347-11	METAL OXIDE	0.68	5%	1W	F
<DIODE>													
D701	8-719-110-14	DIODE RD9.1ES-B3					R729	1-249-416-11	CARBON	820	5%	1/4W	
D702	8-719-911-19	DIODE ISS119					R730	1-249-401-11	CARBON	47	5%	1/4W	
D703	8-719-911-19	DIODE ISS119					R731	1-249-423-11	CARBON	3.3K	5%	1/4W	
D704	8-719-911-19	DIODE ISS119					R732	1-249-415-11	CARBON	680	5%	1/4W	
D705	8-719-911-19	DIODE ISS119					R733	1-249-415-11	CARBON	680	5%	1/4W	
D706	8-719-911-19	DIODE ISS119					R734	1-249-405-11	CARBON	100	5%	1/4W	
							R735	1-215-493-00	METAL	1M	1%	1/6W	
							R736	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
							R737	1-215-487-00	METAL	560K	1%	1/6W	
							R739	1-249-417-11	CARBON	1K	5%	1/4W	

**C**      **D**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK		
<b>&lt;VARIABLE RESISTOR&gt;</b>									
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M		C508	1-106-375-12	MYLAR	0.022MF		
RV702	1-230-619-11	RES, ADJ, METAL GLAZE 110M		C509	1-106-220-00	MYLAR	0.1MF		
RV703	1-237-749-11	RES, ADJ, CARBON 2200		C510	1-161-959-00	CERAMIC	22PF		
RV704	1-237-749-11	RES, ADJ, CARBON 2200		C511	1-108-620-11	MYLAR	0.0033MF		
				C512	1-106-220-00	MYLAR	0.1MF		
				C513	1-108-614-11	MYLAR	0.001MF		
				C514	1-106-228-00	MYLAR	0.22MF		
<b>*****</b>									
*A-1345-721-A	D BOARD, COMPLETE	*****		C515	1-124-499-11	ELECT	1MF		
		*****		C516	1-108-614-11	MYLAR	0.001MF		
				C517	1-124-252-00	ELECT	0.33MF		
				C518	1-124-902-00	ELECT	0.47MF		
				C519	1-136-173-00	FILM	0.47MF		
<b>&lt;CAPACITOR&gt;</b>									
C001	1-102-973-00	CERAMIC	100PF	5%	50V	C520	1-102-121-00	CERAMIC	0.0022MF
C003	1-106-220-00	MYLAR	0.1MF	10%	100V	C521	1-106-220-00	MYLAR	0.1MF
C004	1-123-875-11	ELECT	10MF	20%	50V	C522	1-124-122-11	ELECT	100MF
C005	1-102-074-00	CERAMIC	0.001MF	10%	50V	C523	1-108-614-11	MYLAR	0.001MF
C007	1-106-383-00	MYLAR	0.047MF	10%	100V	C524	1-108-798-11	MYLAR	0.0033MF
C008	1-101-880-00	CERAMIC	47PF	5%	50V	C532	1-124-122-11	ELECT	100MF
C009	1-101-884-00	CERAMIC	56PF	5%	50V	C533	1-106-216-00	MYLAR	0.068MF
C010	1-124-122-11	ELECT	100MF	20%	50V	C534	1-124-120-11	ELECT	220MF
C011	1-101-004-00	CERAMIC	0.01MF		50V	C536	1-131-363-00	TANTALUM	4.7MF
C012	1-124-122-11	ELECT	100MF	20%	50V	C537	1-124-499-11	ELECT	1MF
C013	1-101-004-00	CERAMIC	0.01MF		50V	C538	1-108-614-11	MYLAR	0.001MF
C014	1-124-463-00	ELECT	0.1MF	20%	50V	C539	1-102-820-00	CERAMIC	330PF
C015	1-124-910-11	ELECT	47MF	20%	50V	C591	1-123-875-11	ELECT	10MF
C016	1-101-004-00	CERAMIC	0.01MF		50V	C592	1-124-910-11	ELECT	47MF
C017	1-123-875-11	ELECT	10MF	20%	50V	C593	1-102-820-00	CERAMIC	330PF
C018	1-102-980-00	CERAMIC	270PF	5%	50V	C601	1-162-599-12	CERAMIC	0.0047MF
C019	1-106-383-00	MYLAR	0.047MF	10%	100V	C602	1-162-599-12	CERAMIC	0.0047MF
C020	1-102-973-00	CERAMIC	100PF	5%	50V	C603	1-162-599-12	CERAMIC	0.0047MF
C021	1-102-973-00	CERAMIC	100PF	5%	50V	C604	1-125-318-00	ELECT(BLOCK)	220MF
C022	1-124-910-11	ELECT	47MF	20%	50V	C605	1-124-122-11	ELECT	100MF
C023	1-124-499-11	ELECT	1MF	20%	50V	C606	1-106-220-00	MYLAR	0.1MF
C024	1-124-499-11	ELECT	1MF	20%	50V	C607	1-130-019-00	FILM	0.0012MF
C025	1-102-125-00	CERAMIC	0.0047MF	10%	50V	C608	1-123-875-11	ELECT	10MF
C026	1-102-125-00	CERAMIC	0.0047MF	10%	50V	C611	1-124-122-11	ELECT	100MF
C027	1-106-220-00	MYLAR	0.1MF	10%	100V	C612	1-162-115-00	CERAMIC	330PF
C028	1-101-361-00	CERAMIC	150PF	5%	50V	C613	1-136-539-11	FILM	0.0022MF
C029	1-102-121-00	CERAMIC	0.0022MF	10%	50V	C614	1-102-030-00	CERAMIC	330PF
C030	1-102-952-00	CERAMIC	18PF	5%	50V	C615	1-124-557-11	ELECT	1000MF
C251	1-124-927-11	ELECT	4.7MF	20%	50V	C616	1-102-030-00	CERAMIC	330PF
C252	1-124-927-11	ELECT	4.7MF	20%	50V	C618	1-124-637-11	ELECT	1000MF
C253	1-124-122-11	ELECT	100MF	20%	50V	C619	1-124-556-11	ELECT	220MF
C254	1-124-927-11	ELECT	4.7MF	20%	50V	C620	1-102-074-00	CERAMIC	0.001MF
C255	1-124-927-11	ELECT	4.7MF	20%	50V	C621	1-124-347-00	ELECT	100MF
C256	1-106-220-00	MYLAR	0.1MF	10%	100V	C622	1-124-556-11	ELECT	2200MF
C257	1-101-004-00	CERAMIC	0.01MF		50V	C623	1-124-910-11	ELECT	47MF
C258	1-106-220-00	MYLAR	0.1MF	10%	100V	C624	1-124-122-11	ELECT	100MF
C260	1-106-220-00	MYLAR	0.1MF	10%	100V	C625	1-124-360-00	ELECT	1000MF
C265	1-102-074-00	CERAMIC	0.001MF	10%	50V	C626	1-123-875-11	ELECT	10MF
C266	1-102-074-00	CERAMIC	0.001MF	10%	50V	C627	1-102-074-00	CERAMIC	0.001MF
C401	1-124-910-11	ELECT	47MF	20%	50V	C631	1-123-875-11	ELECT	10MF
C403	1-124-910-11	ELECT	47MF	20%	50V	C632	1-102-074-00	CERAMIC	0.001MF
C501	1-124-927-11	ELECT	4.7MF	20%	50V	C633	1-124-927-11	ELECT	4.7MF
C502	1-124-927-11	ELECT	4.7MF	20%	50V	C636	1-123-382-00	ELECT	3.3MF
C503	1-106-371-00	MYLAR	0.015MF	10%	400V	C801	1-126-105-11	ELECT	1000MF
C504	1-101-361-00	CERAMIC	150PF	5%	50V	C802	1-102-030-00	CERAMIC	330PF
C505	1-108-794-11	MYLAR	0.0015MF	5%	50V	C804	1-123-948-00	ELECT	22MF
C506	1-106-375-12	MYLAR	0.022MF	10%	250V	C805	1-162-114-00	CERAMIC	0.0047MF
C507	1-130-783-00	MYLAR	0.33MF	10%	100V			2KV	

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

**D**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
C806	1-106-220-00	MYLAR	0.1MF	10%	100V	D506	8-719-000-12	DIODE MC931
C807	1-106-395-00	MYLAR	0.15MF	10%	200V	D508	8-719-911-19	DIODE ISS119
C810	1-124-494-00	ELECT	33MF		160V	D511	8-719-911-55	DIODE U05G
C811	1-136-111-00	FILM	1MF	5%	200V	D512	8-719-911-55	DIODE U05G
C812	1-124-634-11	ELECT	1MF	20%	250V	D513	8-719-109-81	DIODE RD4.7ES-B2
C813	1-102-212-00	CERAMIC	820PF	10%	500V	D591	8-719-911-19	DIODE ISS119
C814	1-161-754-00	CERAMIC	0.001MF	10%	2KV	D592	8-719-911-19	DIODE ISS119
C815	1-136-111-00	FILM	1MF	5%	200V	D593	8-719-911-19	DIODE ISS119
C817	1-136-549-11	FILM	0.0106MF	3%	1.4KV	D601	8-719-946-90	DIODE KBU4JL-6088
C818	1-136-759-11	FILM	0.039MF	10%	630V	D602	8-719-925-06	DIODE ERC25-06S
C819 A	1-161-731-11	CERAMIC	0.001MF	10%	2KV	D603	8-719-911-55	DIODE U05G
C820	1-106-218-00	MYLAR	0.0082MF	10%	400V	D604	8-719-911-55	DIODE U05G
C821 A	1-162-116-51	CERAMIC	680PF	10%	2KV	D605	8-719-911-55	DIODE U05G
C822	1-102-114-00	CERAMIC	470PF	10%	50V	D606	8-719-925-06	DIODE ERC25-06S
C823	1-106-359-00	MYLAR	0.0047MF	10%	400V	D607	8-719-925-06	DIODE ERC25-06S
C824	1-102-212-00	CERAMIC	820PF	10%	500V	D608	8-719-925-06	DIODE ERC25-06S
C825	1-106-375-12	MYLAR	0.022MF	10%	250V	D610	8-719-300-59	DIODE CTU-12S
C826	1-123-875-11	ELECT	10MF	20%	50V	D611	8-719-928-08	DIODE ERD28-06S
						D612	8-719-300-59	DIODE CTU-12S
						D613	8-719-925-06	DIODE ERC25-06S
						D614	8-719-925-06	DIODE ERC25-06S
<b>&lt;FILTER&gt;</b>								
CF001	1-567-686-11	OSCILLATOR, CERAMIC				D615	8-719-109-90	DIODE RD5.6ES-B3
CF501	1-567-888-11	OSCILLATOR, CERAMIC				D616	8-719-109-93	DIODE RD6.2ES-B2
<b>&lt;CONNECTOR&gt;</b>								
CN801	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				D618	8-719-109-89	DIODE RD5.6ES-B2
CND01	*1-564-884-11	PLUG, CONNECTOR 7P				D620	8-719-000-12	DIODE MC931
CND02	*1-564-886-11	PLUG, CONNECTOR 9P				D622	8-719-911-19	DIODE ISS119
CND11	*1-566-660-11	CONNECTOR, HINGE (PLUG) 18P				D623	8-719-911-19	DIODE ISS119
CND12	*1-564-884-11	PLUG, CONNECTOR 7P				D624	8-719-911-19	DIODE ISS119
CND18	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)				D627	8-719-911-19	DIODE ISS119
CND19	*1-564-881-11	PLUG, CONNECTOR 4P				D630	8-719-110-39	DIODE RD15ES-B1
CND21	*1-564-346-00	CONNECTOR, BOARD TO BOARD 18P				D632	8-719-110-16	DIODE RD10ES-B1
CND23	*1-560-124-00	PLUG, CONNECTOR (2.5MM PITCH)				D633	8-719-911-19	DIODE ISS119
CND31	*1-564-346-00	CONNECTOR, BOARD TO BOARD 18P				D801	8-719-925-06	DIODE ERC25-06S
CND41	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)				D802	8-719-925-06	DIODE ERC25-06S
CND45	*1-564-882-11	PLUG, CONNECTOR 5P				D803	8-719-300-65	DIODE ES1F
CND51	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)				D804	8-719-911-55	DIODE U05G
CND64	*1-506-348-XX	PIN, CONNECTOR 3P				D805	8-719-911-55	DIODE U05G
CND68	*1-564-879-11	PLUG, CONNECTOR 2P				D806	8-719-945-80	DIODE ERC06-15S
CND82	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				D808	8-719-928-08	DIODE ERD28-08S
CND83	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P				D809	8-719-925-06	DIODE ERC25-06S
CND84	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P						
CND91	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P						
CND92	*1-560-125-00	PLUG, CONNECTOR (2.5MM) 5P						
CND94	*1-560-123-00	PLUG, CONNECTOR (2.5MM PITCH)						
<b>&lt;DIODE&gt;</b>								
D001	8-719-911-19	DIODE ISS119				IC001	8-759-630-06	IC M50436-614SP
D002	8-719-911-19	DIODE ISS119				IC002	8-759-979-57	IC MB88503H-1022G
D003	8-719-911-19	DIODE ISS119				IC003	8-759-603-41	IC M58655P
D004	8-719-911-19	DIODE ISS119				IC004	8-759-157-40	IC UPC574J
D005	8-719-109-71	DIODE RD3.9ES-B1				IC251	8-759-803-31	IC LA4280
D007	8-719-109-89	DIODE RD5.6ES-B2						
D008	8-719-110-85	DIODE RD36ES-B4						
D009	8-719-109-89	DIODE RD5.6ES-B2				IC401	*4-368-683-01	SPRING; IC251
D011	8-719-911-19	DIODE ISS119				IC501	8-752-006-12	IC CX20061
D012	8-719-911-19	DIODE ISS119				IC501	8-759-970-73	IC TEA2028B
D013	8-719-911-19	DIODE ISS119				IC502	8-759-944-57	IC TDA8170
D254	8-719-110-14	DIODE RD9.1ES-B3						
D501	8-719-911-19	DIODE ISS119						
D504	8-719-911-55	DIODE U05G						
<b>&lt;IC&gt;</b>								
						IC601	8-759-946-23	IC TEA2164
						IC608	8-759-700-06	IC UPC7812H
<b>&lt;COIL&gt;</b>								
L001	1-408-414-00	INDUCTOR				L501	1-408-225-00	INDUCTOR
L501	1-408-225-00	INDUCTOR				L601	*1-420-872-00	COIL, AIR CORE
L601	*1-420-872-00	COIL, AIR CORE				L602	1-410-396-41	FERRITE BEAD INDUCTOR
L603	1-410-396-41	FERRITE BEAD INDUCTOR				L603	1-410-396-41	FERRITE BEAD INDUCTOR

The components identified by shading and mark ▲ are critical for safety.  
Replace only with part number specified.

**D**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
L605	1-459-442-00	COIL (WITH CORE)		R018	1-249-417-11	CARBON	1K 5% 1/4W
L606	1-421-013-00	COIL, (HORIZONTAL CHOKES) 25UH		R019	1-249-433-11	CARBON	22K 5% 1/4W
L607	1-408-421-00	INDUCTOR 100UH		R020	1-249-433-11	CARBON	22K 5% 1/4W
L803	1-459-104-00	COIL, DUST CORE		R021	1-249-433-11	CARBON	22K 5% 1/4W
L804	1-408-239-00	INDUCTOR 4.7MMH		R022	1-249-433-11	CARBON	22K 5% 1/4W
L805	1-459-652-12	HLC		R023	1-249-429-11	CARBON	10K 5% 1/4W
L806	1-459-115-00	COIL, DCC-H		R024	1-249-429-11	CARBON	10K 5% 1/4W
L807	1-407-504-00	INDUCTOR 10MMH		R025	1-249-417-11	CARBON	1K 5% 1/4W
L809	*1-420-872-00	COIL, AIR CORE		R026	1-249-417-11	CARBON	1K 5% 1/4W
L810	1-459-390-00	COIL (WITH CORE)		R027	1-249-417-11	CARBON	1K 5% 1/4W
<IC LINK>				R028	1-249-417-11	CARBON	1K 5% 1/4W
PS601▲	1-532-984-91	LINK, IC 2A		R029	1-249-417-11	CARBON	1K 5% 1/4W
PS602▲	1-532-675-91	LINK, IC 1.5A		R030	1-249-425-11	CARBON	4.7K 5% 1/4W
<TRANSISTOR>				R031	1-249-429-11	CARBON	10K 5% 1/4W
Q001	8-729-600-24	TRANSISTOR 2SC403SP-51		R032	1-249-417-11	CARBON	1K 5% 1/4W
Q002	8-729-173-38	TRANSISTOR 2SA733-K		R033	1-249-413-11	CARBON	470 5% 1/4W
Q003	8-729-173-38	TRANSISTOR 2SA733-K		R034	1-249-413-11	CARBON	470 5% 1/4W
Q004	8-729-173-38	TRANSISTOR 2SA733-K		R035	1-249-431-11	CARBON	15K 5% 1/4W
Q252	8-729-900-36	TRANSISTOR DTC124ES		R036	1-249-421-11	CARBON	2.2K 5% 1/4W
Q501	8-729-173-38	TRANSISTOR 2SA733-K		R037	1-249-417-11	CARBON	1K 5% 1/4W
Q502	8-729-173-38	TRANSISTOR 2SA733-K		R038	1-249-417-11	CARBON	1K 5% 1/4W
Q503	8-729-119-78	TRANSISTOR 2SC2785-HFE		R039	1-249-417-11	CARBON	1K 5% 1/4W
Q505	8-729-114-96	TRANSISTOR 2SD774-34		R040	1-249-417-11	CARBON	1K 5% 1/4W
Q506	8-729-140-97	TRANSISTOR 2SB734-34		R041	1-249-417-11	CARBON	1K 5% 1/4W
Q507	8-729-173-38	TRANSISTOR 2SA733-K		R042	1-249-417-11	CARBON	1K 5% 1/4W
Q591	8-729-119-78	TRANSISTOR 2SC2785-HFE		R043	1-249-417-11	CARBON	1K 5% 1/4W
Q598	8-729-119-78	TRANSISTOR 2SC2785-HFE		R044	1-249-429-11	CARBON	10K 5% 1/4W
Q601	8-729-122-03	TRANSISTOR 2SA1220A-Q		R045	1-249-417-11	CARBON	1K 5% 1/4W
Q602	8-729-209-02	TRANSISTOR 2SD1548-LB		R046	1-249-429-11	CARBON	10K 5% 1/4W
*4-368-683-01 SPRING; Q602				R047	1-249-409-11	CARBON	220 5% 1/4W
Q603	8-729-820-15	TRANSISTOR 2SB1185-E		R048	1-249-417-11	CARBON	1K 5% 1/4W
Q604	8-729-308-92	TRANSISTOR 2SD789-03C		R049	1-249-417-11	CARBON	1K 5% 1/4W
Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE		R050	1-249-433-11	CARBON	22K 5% 1/4W
Q606	8-729-119-78	TRANSISTOR 2SC2785-HFE		R051	1-249-429-11	CARBON	10K 5% 1/4W
Q607	8-729-920-92	TRANSISTOR 2SD2096-EF		R052	1-249-439-11	CARBON	68K 5% 1/4W
Q608	*4-368-683-01	SPRING		R053	1-249-437-11	CARBON	47K 5% 1/4W
Q609	8-729-308-92	TRANSISTOR 2SD789-03C		R054	1-249-417-11	CARBON	1K 5% 1/4W
Q801	8-729-119-78	TRANSISTOR 2SC2785-HFE		R055	1-249-433-11	CARBON	22K 5% 1/4W
Q804	8-729-304-50	TRANSISTOR 2SD1941-06		R056	1-249-440-11	CARBON	82K 5% 1/4W
*4-368-683-01 SPRING; Q804				R057	1-249-409-11	CARBON	220 5% 1/4W
Q805	8-729-119-80	TRANSISTOR 2SC2688-LK		R058	1-249-409-11	CARBON	220 5% 1/4W
<RESISTOR>				R059	1-249-435-11	CARBON	33K 5% 1/4W
R001	1-249-417-11	CARBON	1K 5% 1/4W	R060	1-249-436-11	CARBON	39K 5% 1/4W
R002	1-249-417-11	CARBON	1K 5% 1/4W	R061	1-249-417-11	CARBON	1K 5% 1/4W
R003	1-249-417-11	CARBON	1K 5% 1/4W	R062	1-249-411-11	CARBON	330 5% 1/4W
R004	1-249-417-11	CARBON	1K 5% 1/4W	R063	1-249-431-11	CARBON	15K 5% 1/4W
R005	1-249-407-11	CARBON	150 5% 1/4W	R064	1-249-429-11	CARBON	10K 5% 1/4W
R006	1-249-417-11	CARBON	1K 5% 1/4W	R065	1-249-413-11	CARBON	470 5% 1/4W
R007	1-249-405-11	CARBON	100 5% 1/4W	R066	1-249-421-11	CARBON	2.2K 5% 1/4W
R008	1-249-417-11	CARBON	1K 5% 1/4W	R067	1-249-413-11	CARBON	470 5% 1/4W
R009	1-249-417-11	CARBON	1K 5% 1/4W	R068	1-249-421-11	CARBON	2.2K 5% 1/4W
R010	1-249-413-11	CARBON	470 5% 1/4W	R069	1-249-423-11	CARBON	3.3K 5% 1/4W
R011	1-249-417-11	CARBON	1K 5% 1/4W	R070	1-249-417-11	CARBON	1K 5% 1/4W
R012	1-249-417-11	CARBON	1K 5% 1/4W	R071	1-249-417-11	CARBON	1K 5% 1/4W
R013	1-249-417-11	CARBON	1K 5% 1/4W	R072	1-249-417-11	CARBON	1K 5% 1/4W
R014	1-249-417-11	CARBON	1K 5% 1/4W	R073	1-249-417-11	CARBON	1K 5% 1/4W
R015	1-249-429-11	CARBON	10K 5% 1/4W	R074	1-249-417-11	CARBON	1K 5% 1/4W
R017	1-249-417-11	CARBON	1K 5% 1/4W	R075	1-249-417-11	CARBON	1K 5% 1/4W
				R076	1-249-413-11	CARBON	470 5% 1/4W
				R077	1-249-413-11	CARBON	3.3K 5% 1/4W
				R078	1-249-423-11	CARBON	3.3K 5% 1/4W
				R079	1-249-435-11	CARBON	33K 5% 1/4W
				R080	1-249-429-11	CARBON	10K 5% 1/4W
				R081	1-249-441-11	CARBON	100K 5% 1/4W
				R082	1-249-409-11	CARBON	220 5% 1/4W
				R083	1-249-429-11	CARBON	10K 5% 1/4W
				R084	1-249-413-11	CARBON	470 5% 1/4W

D

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R085	1-249-429-11	CARBON	10K 5% 1/4W	R537	1-249-434-11	CARBON	27K 5% 1/4W
R086	1-249-417-11	CARBON	1K 5% 1/4W	R538	1-247-883-00	CARBON	150K 5% 1/4W
R087	1-249-417-11	CARBON	1K 5% 1/4W	R539	1-247-883-00	CARBON	150K 5% 1/4W
R088	1-249-425-11	CARBON	4.7K 5% 1/4W	R540	1-249-399-11	CARBON	33 5% 1/4W
R090	1-249-413-11	CARBON	470 5% 1/4W	R541	1-249-438-11	CARBON	56K 5% 1/4W
R091	1-249-409-11	CARBON	220 5% 1/4W	R542	1-249-425-11	CARBON	4.7K 5% 1/4W
R093	1-249-429-11	CARBON	10K 5% 1/4W	R543	1-249-451-11	CARBON	2.2 5% 1/4W
R094	1-249-429-11	CARBON	10K 5% 1/4W	R544	1-247-745-11	CARBON	330 5% 1/2W
R095	1-249-409-11	CARBON	220 5% 1/4W	R545	1-249-436-11	CARBON	39K 5% 1/4W
R096	1-249-409-11	CARBON	220 5% 1/4W	R546	1-249-434-11	CARBON	27K 5% 1/4W
R097	1-249-429-11	CARBON	10K 5% 1/4W	R547	1-249-426-11	CARBON	5.6K 5% 1/4W
R098	1-249-429-11	CARBON	10K 5% 1/4W	R548	1-216-350-11	METAL OXIDE	1.2 5% 1W F
R099	1-215-900-11	METAL OXIDE	22K 5% 2W F	R549	1-215-890-11	METAL OXIDE	470 5% 2W F
R251	1-249-417-11	CARBON	1K 5% 1/4W	R550	1-249-440-11	CARBON	82K 5% 1/4W
R252	1-249-413-11	CARBON	470 5% 1/4W	R551	1-249-749-00	CARBON	2.2M 5% 1/4W
R253	1-249-413-11	CARBON	470 5% 1/4W	R552	1-216-433-00	METAL OXIDE	1.2K 5% 1W
R255	1-249-385-11	CARBON	2.2 5% 1/4W F	R553	1-216-869-11	METAL OXIDE	1K 5% 1W
R256	1-249-385-11	CARBON	2.2 5% 1/4W F	R554	1-249-411-11	CARBON	330 5% 1/4W
R260	1-249-393-11	CARBON	10 5% 1/4W	R555	1-249-749-00	CARBON	2.2M 5% 1/4W
R261	1-249-429-11	CARBON	10K 5% 1/4W	R556	1-249-405-11	CARBON	100 5% 1/4W
R262	1-249-413-11	CARBON	470 5% 1/4W	R557	1-249-425-11	CARBON	4.7K 5% 1/4W
R263	1-249-421-11	CARBON	2.2K 5% 1/4W	R558	1-247-895-00	CARBON	470K 5% 1/4W
R264	1-249-421-11	CARBON	2.2K 5% 1/4W	R559	1-249-427-11	CARBON	6.8K 5% 1/4W
R265	1-249-425-11	CARBON	4.7K 5% 1/4W	R560	1-249-411-11	CARBON	330 5% 1/4W
R266	1-249-425-11	CARBON	4.7K 5% 1/4W	R591	1-249-427-11	CARBON	6.8K 5% 1/4W
R401	1-249-434-11	CARBON	27K 5% 1/4W	R592	1-249-429-11	CARBON	10K 5% 1/4W
R402	1-249-435-11	CARBON	33K 5% 1/4W	R593	1-249-429-11	CARBON	10K 5% 1/4W
R410	1-249-413-11	CARBON	470 5% 1/4W	R594	1-249-424-11	CARBON	3.9K 5% 1/4W
R411	1-249-413-11	CARBON	470 5% 1/4W	R595	1-249-417-11	CARBON	1K 5% 1/4W
R412	1-249-413-11	CARBON	470 5% 1/4W	R596	1-249-425-11	CARBON	4.7K 5% 1/4W
R500	1-247-897-11	CARBON	560K 5% 1/4W	R597	1-249-425-11	CARBON	4.7K 5% 1/4W
R501	1-249-413-11	CARBON	470 5% 1/4W	R598	1-249-405-11	CARBON	100 5% 1/4W
R502	1-249-409-11	CARBON	220 5% 1/4W	R599	1-249-405-11	CARBON	100 5% 1/4W
R503	1-249-410-11	CARBON	270 5% 1/4W	R602	1-215-901-00	METAL OXIDE	33K 5% 2W F
R504	1-215-427-00	METAL	1.8K 1% 1/6W	R603	1-216-359-00	METAL OXIDE	6.8 5% 1W F
R505	1-249-431-11	CARBON	15K 5% 1/4W	R604	1-249-414-11	CARBON	560 5% 1/4W
R506	1-249-428-11	CARBON	8.2K 5% 1/4W	R605	1-215-469-00	METAL	100K 1% 1/6W
R507	1-247-891-00	CARBON	330K 5% 1/4W	R606	1-249-426-11	CARBON	5.6K 5% 1/4W
R509	1-249-424-11	CARBON	3.9K 5% 1/4W	R607	1-249-434-11	CARBON	27K 5% 1/4W
R510	1-249-426-11	CARBON	5.6K 5% 1/4W	R608	1-215-901-00	METAL OXIDE	33K 5% 2W F
R511	1-249-429-11	CARBON	10K 5% 1/4W	R609	1-249-401-11	CARBON	47 5% 1/4W
R512	1-247-891-00	CARBON	330K 5% 1/4W	R610	1-249-393-11	CARBON	10 5% 1/4W F
R513	1-249-429-11	CARBON	10K 5% 1/4W	R611	1-249-385-11	CARBON	2.2 5% 1/4W F
R514	1-249-409-11	CARBON	220 5% 1/4W	R612	1-207-905-00	WIREWOUND	0.27 10% 2W F
R515	1-249-423-11	CARBON	3.3K 5% 1/4W	R613	1-249-401-11	CARBON	47 5% 1/4W
R516	1-249-408-11	CARBON	180 5% 1/4W	R614	1-205-919-11	WIREWOUND	220 10% 10W F
R517	1-249-429-11	CARBON	10K 5% 1/4W	R616	1-249-417-11	CARBON	1K 5% 1/4W
R518	1-249-437-11	CARBON	47K 5% 1/4W	R617	1-249-411-11	CARBON	330 5% 1/4W
R519	1-249-433-11	CARBON	22K 5% 1/4W	R618	1-216-431-11	METAL OXIDE	560 5% 1W
R520	1-249-411-11	CARBON	330 5% 1/4W	R619	1-249-429-11	CARBON	10K 5% 1/4W
R521	1-249-405-11	CARBON	100 5% 1/4W	R620	1-249-433-11	CARBON	22K 5% 1/4W
R522	1-215-469-00	METAL	100K 1% 1/6W	R621	1-249-431-11	CARBON	15K 5% 1/4W
R523	1-249-417-11	CARBON	1K 5% 1/4W	R622	1-249-429-11	CARBON	10K 5% 1/4W
R524	1-249-421-11	CARBON	2.2K 5% 1/4W	R623	1-249-385-11	CARBON	2.2 5% 1/4W
R525	1-249-417-11	CARBON	1K 5% 1/4W	R624	1-249-411-11	CARBON	330 5% 1/4W
R526	1-249-409-11	CARBON	220 5% 1/4W F	R625	1-215-865-11	METAL OXIDE	220 5% 1W
R527	1-249-431-11	CARBON	15K 5% 1/4W	R626	1-249-411-11	CARBON	330 5% 1/4W
R528	1-249-408-11	CARBON	180 5% 1/4W	R628	1-249-393-11	CARBON	10 5% 1/4W
R529	1-249-427-11	CARBON	6.8K 5% 1/4W	R629	1-249-411-11	CARBON	330 5% 1/4W
R530	1-249-448-11	CARBON	1.2 5% 1/4W F	R630	1-249-437-11	CARBON	47K 5% 1/4W
R533	1-249-408-11	CARBON	180 5% 1/4W	R633	1-249-405-11	CARBON	100 5% 1/4W
R534	1-247-901-11	CARBON	820K 5% 1/4W	R634	1-216-430-11	METAL OXIDE	390 5% 1W
R535	1-249-753-15	CARBON	4.7M 5% 1/4W	R635	1-249-429-11	CARBON	10K 5% 1/4W
R536	1-249-749-00	CARBON	2.2M 5% 1/4W				

**D** **V**

The components identified by shading and mark **A** are critical for safety.  
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R636	1-249-429-11	CARBON	10K 5% 1/4W				
R642	1-216-343-00	METAL OXIDE	0.33 5% 1W	F			
R643	1-217-192-21	WIREWOUND	0.22 10% 2W	F			
R647	1-216-485-11	METAL OXIDE	5.6K 5% 3W	F			
R648	1-216-485-11	METAL OXIDE	5.6K 5% 3W	F			
R650	1-249-417-11	CARBON	1K 5% 1/4W				
R651	1-249-405-11	CARBON	100 5% 1/4W				
R652	1-247-903-00	CARBON	1M 5% 1/4W				
R802	1-249-443-11	CARBON	0.47 5% 1/4W	F			
R805	1-249-448-11	CARBON	1.2 5% 1/4W	F			
R806	1-249-439-11	CARBON	68K 5% 1/4W				
R807	1-216-869-11	METAL OXIDE	1K 5% 1W				
R809	1-202-821-11	SOLID	1.8K 10% 1/2W				
R810	1-202-818-00	SOLID	1K 10% 1/2W				
R811	1-215-863-11	METAL OXIDE	100 5% 1W				
R812	1-249-494-11	CARBON	68K 5% 1/2W				
R815	1-215-884-11	METAL OXIDE	47 5% 2W	F			
R816	1-215-868-00	METAL OXIDE	680 5% 1W				
R817	1-249-417-11	CARBON	1K 5% 1/4W				
R820	1-249-403-11	CARBON	68 5% 1/4W				
R821	1-247-725-11	CARBON	10K 5% 1/4W	F			
R822	1-217-778-11	FUSIBLE	1K 5% 1W	F			
R825	1-216-349-00	METAL OXIDE	1 5% 1W	F			
R826	1-249-441-11	CARBON	100K 5% 1/4W				
R827	1-249-429-11	CARBON	10K 5% 1/4W				
R828	1-249-423-11	CARBON	3.3K 5% 1/4W				
R829	1-249-418-11	CARBON	1.2K 5% 1/4W				
R830	1-249-429-11	CARBON	10K 5% 1/4W				
R831	1-249-451-11	CARBON	2.2 5% 1/4W				
R1001	1-249-421-11	CARBON	2.2K 5% 1/4W				
R1002	1-249-423-11	CARBON	3.3K 5% 1/4W				
R1003	1-249-413-11	CARBON	470 5% 1/4W				
R1005	1-249-408-11	CARBON	180 5% 1/4W				
R1006	1-249-408-11	CARBON	180 5% 1/4W				
R1007	1-249-408-11	CARBON	180 5% 1/4W				
R1008	1-249-409-11	CARBON	220 5% 1/4W				
R1009	1-249-417-11	CARBON	1K 5% 1/4W				
R1012	1-249-405-11	CARBON	100 5% 1/4W				
R5501	1-249-429-11	CARBON	10K 5% 1/4W				
R5502	1-249-417-11	CARBON	1K 5% 1/4W				
R5503	1-249-389-11	CARBON	4.7 5% 1/4W				
R5504	1-247-903-00	CARBON	1M 5% 1/4W				
R5505	1-249-393-11	CARBON	10 5% 1/4W				
<b>&lt;VARIABLE RESISTOR&gt;</b>							
RV501	1-228-991-00	RES, ADJ, CARBON	2.2K				
RV502	1-228-994-00	RES, ADJ, CARBON	10K				
RV601	1-228-991-00	RES, ADJ, CARBON	2.2K				
<b>&lt;CONNECTOR&gt;</b>							
<b>&lt;SPARK GAP&gt;</b>							
SG801	1-519-063-XX	DISCHARGING GAP					
<b>&lt;TRANSFORMER&gt;</b>							
T601 A.1-448-961-31	S.R.T						
T602 A.1-424-011-12	TRANSFORMER, PULSE						
T801 1-437-090-00	HDT						
T802 A.1-439-416-11	TRANSFORMER ASSY, FLYBACK						
<b>&lt;TERMINAL PIN&gt;</b>							
TP91	*1-535-084-00	1P TERMINAL PIN					
<b>&lt;TRIMMER&gt;</b>							
CT01	1-141-392-11	CAP, VAR, TRIMMER (1 GANG)					
<b>&lt;DIODE&gt;</b>							
D01	8-719-400-47	DIODE MA3056M					
D02	8-719-400-95	DIODE MA3130L					
D03	8-719-400-18	DIODE MA152WK					

V

J1

REF. NO.	PART NO.	DESCRIPTION			REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK
D04	8-719-105-52	DIODE RD3.6M-B2				R40	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
D07	8-719-400-63	DIODE MA3068M				R41	1-216-041-00	METAL GLAZE	470	5%	1/10W
D08	8-719-400-63	DIODE MA3068M				R43	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
D09	8-719-400-18	DIODE MA152WK				R44	1-216-041-00	METAL GLAZE	470	5%	1/10W
D10	8-719-400-18	DIODE MA152WK				R45	1-216-049-00	METAL GLAZE	1K	5%	1/10W
D11	8-719-914-44	DIODE DAP202K				R46	1-216-311-00	METAL GLAZE	6.8	5%	1/10W
D12	8-719-914-44	DIODE DAP202K				R51	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
		<IC>				R52	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
IC1	8-759-972-41	IC MAB8461P-W136				R53	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
IC2	8-759-972-96	IC SAA5231-V6				R54	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
IC3	8-759-013-21	IC SDA5241				R55	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
IC4	8-759-230-68	IC TMM2063P-70				R56	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
		<COIL>				R57	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
L01	1-408-411-00	INDUCTOR	15UH			R58	1-216-049-00	METAL GLAZE	1K	5%	1/10W
L02	1-408-407-00	INDUCTOR	6.8UH			R59	1-216-056-00	METAL GLAZE	2K	5%	1/10W
L03	1-408-407-00	INDUCTOR	6.8UH			R60	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
L04	1-408-407-00	INDUCTOR	6.8UH			R61	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
L05	1-408-407-00	INDUCTOR	6.8UH			R62	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
L06	1-408-407-00	INDUCTOR	6.8UH			R63	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
		<TRANSISTOR>				R64	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
Q01	8-729-920-92	TRANSISTOR 2SD2096-EF				R65	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
Q02	8-729-807-50	TRANSISTOR 2SD1623-R				R66	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
Q03	8-729-900-53	TRANSISTOR DTC114EK				R67	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
Q04	8-729-271-22	TRANSISTOR 2SC2712-G				R68	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
Q05	8-729-807-50	TRANSISTOR 2SD1623-R				R69	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
Q06	8-729-271-22	TRANSISTOR 2SC2712-G									
Q07	8-729-900-98	TRANSISTOR DTC143TK									
Q09	8-729-800-68	TRANSISTOR 2SB815B6									
Q10	8-729-800-68	TRANSISTOR 2SB815B6									
Q11	8-729-800-68	TRANSISTOR 2SB815B6									
		<RESISTOR>									
R01	1-218-326-11	METAL GLAZE	470		1/2W						
R02	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W						
R04	1-218-326-11	METAL GLAZE	470		1/2W						
R05	1-216-025-00	METAL GLAZE	100	5%	1/10W						
R06	1-216-049-00	METAL GLAZE	1K	5%	1/10W						
		<CAPACITOR>									
R07	1-216-025-00	METAL GLAZE	100	5%	1/10W	C1401	1-123-875-11	ELECT	10MF	20%	50V
R08	1-216-037-00	METAL GLAZE	330	5%	1/10W	C1402	1-126-103-11	ELECT	470MF	20%	16V
R09	1-216-091-00	METAL GLAZE	56K	5%	1/10W	C1403	1-102-112-00	CERAMIC	330PF	10%	50V
R13	1-216-025-00	METAL GLAZE	100	5%	1/10W	C1404	1-124-902-00	ELECT	0.47MF	20%	50V
R14	1-216-025-00	METAL GLAZE	100	5%	1/10W	C1405	1-101-003-00	CERAMIC	0.0047MF		50V
R15	1-216-121-00	METAL GLAZE	1M	5%	1/10W	C1406	1-124-902-00	ELECT	0.47MF	20%	50V
R16	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	C1407	1-124-477-11	ELECT	47MF	20%	16V
R17	1-216-049-00	METAL GLAZE	1K	5%	1/10W	C1408	1-126-101-11	ELECT	100MF	20%	16V
R18	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	C1409	1-126-233-11	ELECT	22MF	20%	50V
R19	1-216-037-00	METAL GLAZE	330	5%	1/10W	C1410	1-123-875-11	ELECT	10MF	20%	50V
R20	1-216-043-00	METAL GLAZE	560	5%	1/10W	C1411	1-123-875-11	ELECT	10MF	20%	50V
R27	1-216-013-00	METAL GLAZE	33	5%	1/10W	C1412	1-124-477-11	ELECT	47MF	20%	16V
R28	1-216-013-00	METAL GLAZE	33	5%	1/10W	C1413	1-124-477-11	ELECT	47MF	20%	16V
R29	1-216-013-00	METAL GLAZE	33	5%	1/10W	C1414	1-123-875-11	ELECT	10MF	20%	50V
R30	1-218-325-11	METAL GLAZE	120		1/4W	C1415	1-124-902-00	ELECT	0.47MF	20%	50V
R31	1-218-325-11	METAL GLAZE	120		1/4W	C1416	1-124-902-00	ELECT	0.47MF	20%	50V
R32	1-218-325-11	METAL GLAZE	120		1/4W	C1417	1-124-120-11	ELECT	220MF	20%	16V
R33	1-216-023-00	METAL GLAZE	82	5%	1/10W	C1418	1-102-112-00	CERAMIC	330PF	10%	50V
R34	1-216-049-00	METAL GLAZE	1K	5%	1/10W	C1419	1-102-112-00	CERAMIC	330PF	10%	50V
R37	1-216-025-00	METAL GLAZE	100	5%	1/10W	C1421	1-124-477-11	ELECT	47MF	20%	16V
R38	1-216-047-00	METAL GLAZE	820	5%	1/10W	C1423	1-106-375-12	MYLAR	0.022MF	10%	250V

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
C1424	1-106-375-12	MYLAR	0.022MF	10%	250V	IC1402	8-759-946-32	IC TEA2014A
C1425	1-124-902-00	ELECT	0.47MF	20%	50V	IC1501	8-759-942-16	IC TEA2031A
C1426	1-124-902-00	ELECT	0.47MF	20%	50V			
C1427	1-101-003-00	CERAMIC	0.0047MF		50V			
C1428	1-101-003-00	CERAMIC	0.0047MF		50V			
								<COIL>
C1429	1-101-003-00	CERAMIC	0.0047MF		50V	L1401	1-412-043-11	INDUCTOR, WIDE BAND
C1430	1-102-112-00	CERAMIC	330PF	10%	50V	L1402	1-412-043-11	INDUCTOR, WIDE BAND
C1431	1-124-902-00	ELECT	0.47MF	20%	50V			
C1432	1-124-902-00	ELECT	0.47MF	20%	50V			
C1433	1-126-101-11	ELECT	100MF	20%	16V			<TRANSISTOR>
C1436	1-102-074-00	CERAMIC	0.001MF	10%	50V	Q1401	8-729-173-38	TRANSISTOR 2SA733-K
C1437	1-102-074-00	CERAMIC	0.001MF	10%	50V	Q1402	8-729-173-38	TRANSISTOR 2SA733-K
C1501	1-123-875-11	ELECT	10MF	20%	50V			
C1502	1-123-875-11	ELECT	10MF	20%	50V			
C1503	1-108-614-11	MYLAR	0.001MF	10%	100V			<RESISTOR>
C1504	1-124-910-11	ELECT	47MF	20%	50V	R1401	1-249-404-00	CARBON
C1505	1-106-383-00	MYLAR	0.047MF	10%	100V	R1402	1-247-698-11	CARBON
C1507	1-108-620-11	MYLAR	0.0033MF	10%	100V	R1403	1-249-437-11	CARBON
C1508	1-123-875-11	ELECT	10MF	20%	50V	R1404	1-249-413-11	CARBON
C1509	1-124-499-11	ELECT	1MF	20%	50V	R1405	1-249-429-11	CARBON
C1511	1-123-875-11	ELECT	10MF	20%	50V	R1407	1-247-895-00	CARBON
C1512	1-106-363-00	MYLAR	0.0068MF	10%	400V	R1408	1-249-434-11	CARBON
C1513	1-102-963-00	CERAMIC	33PF	5%	50V	R1409	1-249-413-11	CARBON
C1514	1-106-353-00	MYLAR	0.027MF	10%	250V	R1410	1-249-434-11	CARBON
C1515	1-102-117-00	CERAMIC	820PF	10%	50V	R1411	1-249-413-11	CARBON
						R1412	1-249-437-11	CARBON
						R1413	1-247-895-00	CARBON
						R1414	1-249-437-11	CARBON
						R1415	1-249-434-11	CARBON
						R1416	1-249-434-11	CARBON
						R1417	1-249-404-00	CARBON
CN1401	1-536-996-11	TERMINAL BOARD, INPUT/OUTPUT				R1418	1-247-738-11	CARBON
CN1402	1-561-534-41	SOCKET 21P				R1419	1-249-409-11	CARBON
CN1403	1-561-534-41	SOCKET 21P				R1420	1-249-409-11	CARBON
CNJ25	*1-564-892-41	PLUG, CONNECTOR 3P				R1421	1-249-417-11	CARBON
CNJ41	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P				R1422	1-249-417-11	CARBON
CNJ43	*1-564-893-11	PLUG, CONNECTOR 4P				R1423	1-249-434-11	CARBON
CNJ45	*1-564-894-11	PLUG, CONNECTOR 5P				R1424	1-249-434-11	CARBON
CNJ51	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P				R1425	1-249-417-11	CARBON
CNJ67	*1-560-721-21	PLUG, CONNECTOR 2P				R1426	1-249-417-11	CARBON
CNJ142	*1-564-893-11	PLUG, CONNECTOR 4P				R1427	1-249-417-11	CARBON
						R1428	1-247-895-00	CARBON
						R1429	1-247-895-00	CARBON
						R1430	1-247-699-11	METAL
D1401	8-719-110-04	DIODE RD7.5ES-B3				R1431	1-249-409-11	CARBON
D1403	8-719-110-04	DIODE RD7.5ES-B3				R1432	1-249-393-11	CARBON
D1404	8-719-110-04	DIODE RD7.5ES-B3				R1433	1-249-409-11	CARBON
D1405	8-719-110-04	DIODE RD7.5ES-B3				R1434	1-249-393-11	CARBON
D1406	8-719-110-04	DIODE RD7.5ES-B3				R1435	1-249-429-11	CARBON
D1407	8-719-110-18	DIODE RD10ES-B3				R1436	1-249-415-11	CARBON
D1408	8-719-110-14	DIODE RD9.1ES-B3				R1437	1-249-429-11	CARBON
D1409	8-719-110-04	DIODE RD7.5ES-B3				R1438	1-249-415-11	CARBON
D1410	8-719-110-04	DIODE RD7.5ES-B3				R1439	1-249-437-11	CARBON
D1415	8-719-110-04	DIODE RD7.5ES-B3				R1440	1-249-415-11	CARBON
D1418	8-719-110-04	DIODE RD7.5ES-B3				R1441	1-249-415-11	CARBON
D1419	8-719-110-04	DIODE RD7.5ES-B3				R1442	1-249-437-11	CARBON
D1420	8-719-110-04	DIODE RD7.5ES-B3				R1443	1-249-437-11	CARBON
D1501	8-719-912-20	DIODE ISS120				R1444	1-249-409-11	CARBON
D1502	8-719-911-19	DIODE ISS119				R1445	1-249-440-11	CARBON
D1503	8-719-911-19	DIODE ISS119				R1446	1-249-409-11	CARBON
D1504	8-719-911-19	DIODE ISS119				R1447	1-249-409-11	CARBON
D1505	8-719-000-12	DIODE MC931				R1448	1-249-409-11	CARBON
D1506	8-719-110-85	DIODE RD36ES-B4				R1449	1-249-412-11	CARBON
D1507	8-719-911-19	DIODE ISS119				R1450	1-249-412-11	CARBON
						R1451	1-249-412-11	CARBON
						R1452	1-249-412-11	CARBON
						R1453	1-249-412-11	CARBON
						R1454	1-247-703-11	METAL
						R1455	1-247-703-11	METAL
						R1456	1-249-405-11	CARBON
						R1501	1-249-433-11	CARBON
						R1502	1-249-434-11	CARBON
						R1503	1-247-895-00	CARBON
						R1504	1-249-435-11	CARBON
						R1505	1-249-433-11	CARBON

**J1****J2****H3****H4****Ks**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK				
R1506	1-247-895-00	CARBON	470K 5% 1/4W	S1401	1-571-085-21	SWITCH, TACTILE					
R1509	1-247-887-00	CARBON	220K 5% 1/4W	S1402	1-571-085-21	SWITCH, TACTILE					
R1510	1-249-426-11	CARBON	5.6K 5% 1/4W	S1403	1-571-085-21	SWITCH, TACTILE					
R1511	1-249-417-11	CARBON	1K 5% 1/4W	S1404	1-571-085-21	SWITCH, TACTILE					
R1512	1-249-429-11	CARBON	10K 5% 1/4W	S1405	1-571-085-21	SWITCH, TACTILE					
R1513	1-249-438-11	CARBON	56K 5% 1/4W	S1406	1-571-085-21	SWITCH, TACTILE					
R1514	1-249-417-11	CARBON	1K 5% 1/4W	S1407	1-571-085-21	SWITCH, TACTILE					
R1515	1-247-899-11	CARBON	680K 5% 1/4W	S1408	1-571-085-21	SWITCH, TACTILE					
R1516	1-249-432-11	CARBON	18K 5% 1/4W	S1409	1-571-085-21	SWITCH, TACTILE					
R1517	1-249-410-11	CARBON	270 5% 1/4W	S1410	1-571-085-21	SWITCH, TACTILE					
R1518	1-249-429-11	CARBON	10K 5% 1/4W	S1411	1-571-085-21	SWITCH, TACTILE					
R1519	1-247-883-00	CARBON	150K 5% 1/4W	S1412	1-571-085-21	SWITCH, TACTILE					
R1520	1-247-895-00	CARBON	470K 5% 1/4W	S1414	1-571-085-21	SWITCH, TACTILE					
R1521	1-249-425-11	CARBON	4.7K 5% 1/4W								
R1556	1-249-426-11	CARBON	5.6K 5% 1/4W								
<VARIABLE RESISTOR>											
RV1501	1-238-023-11	RES, ADJ, CARBON	470K								
RV1502	1-228-994-00	RES, ADJ, CARBON	10K								
RV1503	1-238-017-11	RES, ADJ, CARBON	22K								
RV1504	1-238-012-11	RES, ADJ, CARBON	1K								
RV1505	1-238-023-11	RES, ADJ, CARBON	470K								
RV1506	1-238-017-11	RES, ADJ, CARBON	22K								
RV1507	1-238-009-11	RES, ADJ, CARBON	220								
RV1508	1-238-016-11	RES, ADJ, CARBON	10K								
RV1509	1-228-999-00	RES, ADJ, CARBON	470K								
*****											
*1-629-783-21	J2 BOARD		*****								
<CAPACITOR>											
C1401	1-126-105-11	ELECT	1000MF	20%	35V	D1401	8-719-948-31 DIODE LD-201VR				
C1402	1-126-105-11	ELECT	1000MF	20%	35V	*4-387-825-01	HOLDER, LED; D1401				
<CONNECTOR>											
CNJ23	*1-564-893-11	PLUG, CONNECTOR	4P	D1402	8-719-948-31 DIODE LD-201VR						
CNJ242	*1-564-893-11	PLUG, CONNECTOR	4P	*4-387-825-01	HOLDER, LED; D1402						
D1403	8-719-948-31	DIODE LD-201VR		D1403	8-719-948-31 DIODE LD-201VR						
<CONNECTOR>											
J1401	1-507-806-00	JACK		D1404	8-719-948-31 DIODE LD-201VR						
<RESISTOR>											
R1401	1-247-708-11	CARBON	470 5% 1/4W	<IC>							
R1402	1-247-708-11	CARBON	470 5% 1/4W	IC1401	8-741-138-70 IC BX-1387						
*****				IC1401	8-749-901-33 IC SBX1483-11						
*1-629-785-21	H3 BOARD		*****	*****							
<CONNECTOR>								*1-629-781-21 KS BOARD			
CNH302	*1-564-898-11	PLUG, CONNECTOR	9P					*****			
CNH303	*1-564-892-41	PLUG, CONNECTOR	3P								
<DIODE>											
D1405	8-719-812-41	DIODE TLR124		C202	1-124-902-00 ELECT	0.47MF	20%	50V			
*4-348-208-00	HOLDER, LED; D1405			C203	1-124-477-11 ELECT	47MF	20%	16V			
<CAPACITOR>				C204	1-124-902-00 ELECT	0.47MF	20%	50V			
				C205	1-124-927-11 ELECT	4.7MF	20%	50V			
				C206	1-124-477-11 ELECT	47MF	20%	16V			
<CONNECTOR>				C207	1-124-927-11 ELECT	4.7MF	20%	50V			
				C213	1-126-233-11 ELECT	22MF	20%	50V			
				C214	1-106-363-00 MYLAR	0.0068MF	10%	400V			
				C217	1-106-363-00 MYLAR	0.0068MF	10%	400V			
				C218	1-106-375-12 MYLAR	0.022MF	10%	250V			
<DIODE>				C219	1-106-375-12 MYLAR	0.022MF	10%	250V			
				C220	1-108-620-11 MYLAR	0.0033MF	10%	100V			
				C221	1-108-620-11 MYLAR	0.0033MF	10%	100V			
				C222	1-106-375-12 MYLAR	0.022MF	10%	250V			

**Ks**

The components identified by shading and mark **▲** are critical for safety.  
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK							
C223	1-106-375-12	MYLAR	0.022MF	10%	250V	R224	1-249-413-11	CARBON	470	5%	1/4W			
C224	1-106-367-00	MYLAR	0.01MF	10%	400V	R225	1-249-417-11	CARBON	1K	5%	1/4W			
C225	1-136-173-00	FILM	0.47MF	5%	50V	R226	1-249-417-11	CARBON	1K	5%	1/4W			
C226	1-136-173-00	FILM	0.47MF	5%	50V	R227	1-249-417-11	CARBON	1K	5%	1/4W			
C227	1-106-375-12	MYLAR	0.022MF	10%	250V	R228	1-249-417-11	CARBON	1K	5%	1/4W			
C228	1-106-379-12	MYLAR	0.033MF	10%	250V	R229	1-249-441-11	CARBON	100K	5%	1/4W			
C229	1-106-371-00	MYLAR	0.015MF	10%	400V	R230	1-249-441-11	CARBON	100K	5%	1/4W			
C230	1-106-371-00	MYLAR	0.015MF	10%	400V	R231	1-249-437-11	CARBON	47K	5%	1/4W			
C231	1-124-902-00	ELECT	0.47MF	20%	50V	R232	1-249-437-11	CARBON	47K	5%	1/4W			
C232	1-123-875-11	ELECT	10MF	20%	50V	*****								
C233	1-102-114-00	CERAMIC	470PF	10%	50V	*****								
C234	1-102-114-00	CERAMIC	470PF	10%	50V	*****								
C235	1-102-114-00	CERAMIC	470PF	10%	50V	*****								
C236	1-102-114-00	CERAMIC	470PF	10%	50V	*****								
C237	1-124-902-00	ELECT	0.47MF	20%	50V	*****								
C238	1-102-978-00	CERAMIC	220PF	5%	50V	▲ 1-451-295-31	DEFLECTION YOKE (Y21PFA2)							
C239	1-126-103-11	ELECT	470MF	20%	16V	1-452-032-00	MAGNET, DISK; 10MM $\phi$							
*****														
<CONNECTOR>								1-452-094-00	MAGNET, RPTATABLE DISK; 15MM $\phi$					
CNK21 *1-562-370-21 CONNECTOR, BOARD TO BOARD 18P								1-452-277-00	MAGNET, BMC					
CNK25 *1-564-880-31 PLUG, CONNECTOR 3P								1-503-642-41	SPEAKER					
*****								1-574-565-11	CORD (WITH PLUG)					
*****								▲ 1-559-346-12	CORD, POWER (WITH CONNECTOR)					
*****								L901 ▲ 1-426-383-11	COIL, DEMAGNETIZATION					
*****								V901 ▲ 8-738-753-05	PICTURE TUBE (A51JUH60X)					
*****								*****						
<DIODE>								*****						
D201	8-719-110-14	DIODE RD9.1ES-B3				*****								
D202	8-719-110-14	DIODE RD9.1ES-B3				*****								
D205	8-719-110-04	DIODE RD7.5ES-B3				*****								
D206	8-719-110-04	DIODE RD7.5ES-B3				*****								
<IC>								*****						
IC201	8-759-013-17	IC TDA6200				A-1470-844-A	COMMANDER ASSY (RM-673)							
<TRANSISTOR>						3-750-032-51	MANUAL, INSTRUCTION							
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE				*4-377-015-01	BAG, PROTECTION							
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE				*4-387-852-02	CUSHION (UPPER) (ASSY)							
<RESISTOR>						*4-387-853-03	CUSHION (LOWER) (ASSY)							
R201	1-249-441-11	CARBON	100K	5%	1/4W	*****								
R202	1-249-425-11	CARBON	4.7K	5%	1/4W	*****								
R203	1-249-441-11	CARBON	100K	5%	1/4W	*****								
R204	1-249-435-11	CARBON	33K	5%	1/4W	*****								
R205	1-249-435-11	CARBON	33K	5%	1/4W	*****								
R206	1-249-423-11	CARBON	3.3K	5%	1/4W	*****								
R207	1-249-423-11	CARBON	3.3K	5%	1/4W	*****								
R208	1-249-431-11	CARBON	15K	5%	1/4W	*****								
R209	1-249-433-11	CARBON	22K	5%	1/4W	*****								
R210	1-249-431-11	CARBON	15K	5%	1/4W	*****								
R211	1-249-441-11	CARBON	100K	5%	1/4W	*****								
R212	1-249-433-11	CARBON	22K	5%	1/4W	*****								
R213	1-249-431-11	CARBON	15K	5%	1/4W	*****								
R214	1-249-417-11	CARBON	1K	5%	1/4W	*****								
R215	1-249-433-11	CARBON	22K	5%	1/4W	*****								
R216	1-249-433-11	CARBON	22K	5%	1/4W	*****								
R217	1-249-431-11	CARBON	15K	5%	1/4W	*****								
R218	1-249-417-11	CARBON	1K	5%	1/4W	*****								
R219	1-249-429-11	CARBON	10K	5%	1/4W	*****								
R220	1-249-425-11	CARBON	4.7K	5%	1/4W	*****								
R221	1-249-417-11	CARBON	1K	5%	1/4W	*****								
R222	1-249-417-11	CARBON	1K	5%	1/4W	*****								
R223	1-249-413-11	CARBON	470	5%	1/4W	*****								